



THE UNIVERSITY OF GEORGIA

COOPERATIVE EXTENSION

Colleges of Agricultural and Environmental Sciences & Family and Consumer Sciences

Outlook 2008: Trends, Issues and Resources

Provided by the
University of Georgia Cooperative Extension

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COOPERATIVE EXTENSION
College of Agricultural and Environmental Sciences & Family and Consumer Sciences

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**Section I:
4-H & Youth**

Outlook 2008: Trends, Issues and Resources

Program Area: 4-H & Youth **Department:** 4-H & Youth

Emerging Issue: *Healthy Nutrition for Youth*

State Issue: Healthy Lifestyles Choices for Youth

Status: Long Term

Description: All parents want their children to be healthy. As children and teens go through remarkable physical changes of all kinds, their food intake becomes a critical aspect of this growth and development. Recent research shows that nourishing food not only makes a child / teen healthier, it also makes him / her emotionally more stable and improves school performance. Paying attention to the diets of children and teens pays high dividends. A child's nutrition is important to his / her overall health. Proper nutrition can also prevent many medical problems, including becoming overweight, developing weak bones, and developing diabetes. It will also ensure that the child / teen physically grows to his / her full potential. Healthy eating habits and regular exercise should be a regular part of family life.

Trend: Georgia 4-H (as well as National 4-H) selected "Healthy Living" as a critical issue to address in statewide programming. Poor nutrition is a prolific problem across the U.S. and contributes to childhood overweight. This trend can be reversed with preventive programming and interventions. Obesity prevention, encouragement of physical activity and nutrition education should begin as early as possible by emphasizing healthful diets, good nutrition and physical activity in early childhood.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Curriculums, workshops, support, etc

Web Page: www.georgia4h.org/public/more/healthylifestyles/default.htm

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Outlook 2008: Trends, Issues and Resources

Program Area: 4-H & Youth **Department:** 4-H & Youth

Emerging Issue: *Physical Activity for Youth*

State Issue: Healthy Lifestyles Choices for Youth

Status: Long Term

Description: Physical inactivity has become a serious problem in the United States. More than half of U.S. adults do not meet recommended levels of moderate physical activity, and one-fourth engage in no leisure time physical activity at all (PHYSICAL ACTIVITY). Inactivity is more prevalent among those with lower income and education, and, beginning in adolescence, affects females more than males (NIH; Physical Activity). A pattern of inactivity, also known as sedentism, begins early in life, making the promotion of physical activity among children imperative. Physical activity has been defined as "bodily movement produced by skeletal muscles that results in energy expenditure" (Pate, Pratt et al., 1995). There is no debate about the value of physical exertion--regular physical activity has significant health benefits, and even modest increases in energy expenditure can have health-enhancing effects, including: Reduction in chronic disease risk--hypertension, type 2 diabetes, high blood lipids, cardiovascular disease, and obesity. Even among children and adolescents, physical activity can prevent or delay the development of hypertension and can reduce blood pressure in those young people who already have hypertension (Physical Activity, 1996); lowered risk of colon cancer; Increase in bone density; Reduction of anxiety, improvement in body image and mood; Development of physical fitness; Promotion of weight control through caloric expenditure. This benefit is of particular importance to children, who are experiencing the same epidemic of overweight as adults.

Trend: Georgia 4-H (as well as National 4-H) selected "Healthy Living" as a critical issue to address in statewide programming. More children today are overweight or obese than ever before. "Overweight" means that the individual weighs more than is recommended for a given height; when this excess weight is in the form of fat, health problems may develop. "Obesity" is an excess of body fat. Data indicate that 11% of 6-11 year olds and 14% of 12-17 year olds are obese, double the prevalence of 30 years ago (CDC, 1996). This is of particular concern because body weight and overfatness in children are significant cardiovascular disease risk factors, and the risk tracks into adolescence and young adulthood if not checked in childhood. In addition, obese children often experience exclusion from social groups and low self-esteem.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Curriculums, workshops, support, etc

Web Page: www.georgia4h.org/public/more/healthylifestyles/default.htm

Primary Contacts: Cheryl Varnadoe, 4-H and Youth, cv4h@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: 4-H & Youth **Department:** 4-H & Youth

Emerging Issue: *Teens and Cyberbullying*

State Issue: Healthy Lifestyles Choices for Youth

Status: Short & Long Term

Description: Cyberbullying is in the national spotlight, and the news is not encouraging. On the heels of a widely-publicized case in Missouri that led to the suicide of a 13-year-old girl, new research suggests online harassment is on the rise among students. As many as one in three U.S. children have been ridiculed or threatened through computer messages, according to one estimate of the emerging problem of cyber bullying (CDC, 2007). Another new study found the problem is less common, with one in 10 kids reporting online harassment, but health experts say even the lower estimate signals a growing and worrisome public health issue.

Trend: The schoolyard continues to be a source of in-person bullying. Studies indicate that roughly 17 percent of early adolescents say they are victims of recurring verbal aggression or physical harassment. Some kids suffer both in-person and electronic harassment, but it's more often one or the other. A study by California-based researcher Michele Ybarra found 64 percent of youths who were harassed online were not also bullied in person. Based on a recent online survey of 1,588 children ages 10 to 15, 34 percent said they were the victim of Internet harassment at least once in the previous year, and 8 percent said they were targeted monthly or more often. Also, 15 percent said they've received at least one unwanted sexual communication in the past year. That included solicitations for sex, conversations about sex, or questions about bra size or other personal sexual information. All bothersome communications were included, no matter the age of the sender. Also a recent telephone survey of 1,500 internet users, ages 10 to 17 found that 9 percent who said they were harassed online in the previous year was an increase from the 6 percent in a similar study from 2000. More than half of the communications came from people whom the children had never met. Many of these messages were handled easily by deleting the comment or blocking additional postings from the senders. For educators on the front lines, cyber bullying is a threat that needs to be taken seriously. "As with other forms of bullying, victims of chronic abuse are more likely to develop depression or low self-esteem, bring weapons to school or contemplate suicide. The fear and anxiety caused by [cyber] bullying can interfere with learning, damage the school climate, and leave victims psychically scarred" (Nora Carr, 2007).

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: www.harrisinteractive.com/news/newsletters/k12news/Hi_TrendsTudes_2007_v06_i04.pdf

Web Page: www.georgia4h.org/public/more/facsprojectsissues/Internet%20and%20Social%20Networking%20Safety/internet%20safety.htm

Primary Contacts: Cheryl Varnadoe, 4-H and Youth, cv4h@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: 4-H & Youth **Department:** 4-H & Youth

Emerging Issue: ***Increasing Science, Engineering and Technology (SET) Skills of Tomorrow's Workforce***

State Issue: Other: Science, Engineering & Technology

Status: Long Term

Description: The United States faces a critical challenge in that many young people do not have the science, engineering and technology (SET) skills necessary to be successful in the workplace, while demand for SET careers is on the rise. These same SET abilities are also crucial for a meaningful understanding of our natural world. The ability to reason, think critically, and question our surroundings are paramount as our nation progresses through the 21st century. In order to remain competitive and in a leadership role worldwide, the United States must continue to fill the SET fields with highly trained and highly skilled workers. In their 2006 report, "Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future," the National Academies identified two factors that determine America's ability to compete globally: 1) a population that is well trained and technically competent, and 2) the scientific and technological innovations they produce. With both interest and proficiency in SET on the decline, action must be taken immediately to reverse this trend.

Trend: The National Assessment of Educational Progress reports that in both the 2000 and 2005 assessment results, only 18% of high school seniors are considered proficient in science. Additionally, only 5% of college undergraduates earn degrees in science and engineering, according to Rising Above the Gathering Storm (2006). The Trends in International Mathematics and Science Study (TIMSS) reported by the National Center for Education Statistics tells us that in the last three assessments (1995, 1999, 2003), the United States is consistently behind 5-10 other countries in science scores (4th and 8th grades). 4-H has its roots in science and works with the age group that stands to benefit from an intense focus on SET. Many students lose interest in science during the middle school years, when science is not considered interesting or relevant. However, 4-H's unique approach and ability to connect the science and research of land-grant colleges and universities to local communities, allows for an opportunity for 4-H to focus on its successes of over 100 years of youth programming. By lifting up Science, Engineering, and Technology as a Mission Mandate, Georgia 4-H (as well as National 4-H) looks to address the critical shortage of a competent SET workforce in the United States. Through the state 4-H and county 4-H offices, by partnering with local school systems, and through the environmental education programs at our five 4-H Centers, Georgia can significantly contribute to the goal set by National 4-H to involve and engage 1 million new youth in SET programming by 2013.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: National 4-H plans to develop curricula and activities. As these and any other resources become available, information will be passed to counties.

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Outlook 2008: Trends, Issues and Resources

Program Area: 4-H & Youth **Department:** 4-H & Youth

Emerging Issue: *Teens, Technology and Safety*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: Close to nine in ten teens are Internet users (Pew Internet & American Life Project, 2005). The vast majority of teens in the United States, 87% of those aged 12 to 17, now use the Internet. That amounts to about 21 million youth who use the Internet, up from roughly 17 million teens in late 2000. Not only has the wired share of the teenage population grown, but teens' use of the Internet has intensified. Teenagers now use the Internet more often and in a greater variety of ways than they did in 2000. There are now approximately 11 million teens who go online daily, compared to about 7 million in 2000.

Trend: 51% of teenage Internet users say they go online on a daily basis, up from 42% in 2000. At the same time, the scope of teens' online lives has also broadened. One out of every two teens who use the Internet lives in a home with a broadband connection.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Curriculums, workshops, support, etc

Web Page: www.georgia4h.org/public/more/facsprojectsissues/Internet%20and%20Social%20Networking%20Safety/internet%20safety.htm

Primary Contacts: Cheryl Varnadoe, 4-H and Youth, cv4h@uga.edu

**Section II:
Agriculture &
Natural Resources**

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Agricultural & Applied Economics

Emerging Issue: ***2008 Farm Bill Programs***

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: The 2008 Farm Bill creates changes in payments to agricultural producers in terms of government payment programs (commodity title) and conservation programs (conservation title).

Trend: Every five years, the farm bill is revised. The 2008 Farm Bill will affect agricultural producers through 2012. The 2008 Farm Bill created a new optional crop revenue enhancement program, incorporated specialty crops and organic agriculture into several programs and increased funding for conservation programs. In addition, there were changes to crop insurance, a permanent disaster program was established, and there was increased funding for energy. These programs will impact agricultural profitability and sustainability in Georgia.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.ces.uga.edu/agriculture/agecon/fbill/fbill2007.html

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Outlook 2008: Trends, Issues and Resources

Program Area:

A&NR

Department:

Agricultural & Applied Economics

Emerging Issue:

Changing Farm Labor Market Conditions under Stricter Immigration Policies

State Issue:

Agricultural Profitability & Sustainability

Status:

Short Term

Description:

Recent and forthcoming immigration reforms are expected to bring about radical changes in the farm labor market conditions.

Trend:

Stricter immigration policies will affect an estimated 12 million unauthorized immigrants, 40% of whom are hired as farm workers (Seid, 2006; Levine, 2004). These illegal workers who are mostly “poorly paid and poorly treated” (Smith, 2005) are usually hired at wages below prevailing market rates. Their displacement will most likely create labor shortages, which can be remedied if farm labor wages are increased significantly to attract legal workers from other industries. The high labor-dependence of most farms, especially smaller and organic types of operations, could potentially make them more economically vulnerable under conditions of farm labor scarcity and inflating farm wage rates.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources:

Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications

Primary Contacts:

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Outlook 2008: Trends, Issues and Resources

Program Area:

A&NR

Department:

Agricultural & Applied Economics

Emerging Issue:

Commodity Price Volatility

State Issue:

Agricultural Profitability & Sustainability

Status:

Short Term

Description:

Commodity prices are becoming increasingly volatile. Producers are finding it more difficult to manage price risk, and marketing decisions are complex.

Trend:

Crop prices have increased dramatically in recent years. Prices for many commodities like corn, soybeans and wheat are at or near historic highs. Prices for most major row crops are high. While this would seem to be a good "problem" to have, the benefit of higher prices has been eroded by high prices for many farm inputs such as fuel and fertilizers. Further, producers have been unable to fully benefit from high prices due to widening basis (local cash prices are well below their normal relationship to futures prices). Also, in the case of cotton, cash contracts have been unavailable. Widening basis and unavailability of contracts is due to increased risk and volatility in the market and the influence of speculative interests on price that drive the market higher than can be supported by supply and demand. Producers have traditionally used such strategies as contracting and using futures options as tools for managing price risk, but these and other tools in the producers "toolbox" do not work as effectively as they once did. Producers need to re-evaluate and consider these and other methods of managing price risk.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources:

Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Agricultural & Applied Economics

Emerging Issue: *Managing Risk in a Changing U.S. and Global Environment*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: The production and market environment for row crops grown in Georgia is changing as outside market influences impact the price for the commodity and inputs used to grow the commodity. Despite high market prices, Georgia row crop growers are at higher risk with the rise in input prices. Input prices will likely be sticky as global demand for fuel, fertilizer and chemicals grow in competition with US growers. As price takers, Georgia growers will eventually be squeezed when the prices for corn, cotton, peanuts, soybeans and wheat come down. Strategic planning and effective management of production and price risk will be essential to the long-run viability of farming in Georgia.

Trend: Production costs for corn, cotton and peanuts are estimated to have increased by over 40% in the last two years. Most of the increase is directly attributable to higher oil prices which impact fuel, fertilizer and chemical prices. Georgia growers face more risk of production as more working capital is required. A new paradigm shift may have happened in 2007/08 with certain input prices that were relatively stable and predictable for planning purposes. Growers now face greater price risk on the input side as well as on the output side. Annual crop budgets now need to be done in pencil. Prices received by Georgia row crop growers are more and more influenced by global forces as well as domestic demand. The recent bull run that has corn above \$7 per bushel, soybeans above \$14, and wheat above \$9 at one time is a result of several factors, foreign consumption being a major one. Speculative interest in commodities has increased the volatility of commodity prices. Grain ethanol and biodiesel are now a major competitor with food and feed use for corn and soybeans. Strategic planning will be important for Georgia growers in terms of mapping out their goals and responses to the new risk environment. Training and proficiency in the use of risk management tools is needed in order to manage risk rather than have risk manage the grower. Georgia growers need to develop the flexibility to respond to market changes, adopt new technology, and try new alternatives that may present themselves in the area of biofuels or growing market segments of organic and naturally grown food. Risk management practices and tools that growers should consider is irrigation, crop and revenue insurance, futures and options including weather derivatives and effective use of government safety net programs. Internally, extension agents should be well-trained in risk management tools and alternatives to assist growers. Externally, in-depth education training program can be developed to address how growers can adjust and adapt to the new risk environment.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Agricultural & Applied Economics

Emerging Issue: *Specialty Crops and Organic Agriculture*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: Specialty crops and organic agriculture are emerging industries. In 2007 organic food sales reached \$20.01 billion, for an increase of 19.7% from the previous year. It is anticipated that the market will grow by 18% from now through 2010. The organic food distribution channel can be broken down as follows: (1) 47% natural food chains (health foods, natural grocery items), (2) 46% mass-market channels (super-markets, grocery stores, mass merchants etc.), (3) 7% other (including farmers markets, food service and other non retail-store sales). Unfortunately, the exponential growth of these industries has not been matched with equal research and extension activities. It is likely that specialists and County Agents will start having (or already have) interested growers visiting their offices or calling with questions ranging from agronomic, pathological and economic issues to what are the best agricultural practices, to how much does it cost to grow these crops. These industries will eventually require the same attention that the fruit and vegetable and the row crop industries have enjoyed for several decades. Are we prepared to address their needs? The answer is unequivocally no, because of the diversity of crops they grow and the speed with which areas grown are increasing. In addition, there is limited marketing, pricing and production cost data to determine profit margins. In short, at this point, the College does not have enough capacity to address the needs of these rapidly emerging industries.

Trend: Because of the increased demand for healthy food and food safety and the raising concerns about obesity, coupled with a high level of producers' interest in this niche market, the research and extension needs of the specialty crops and organic agriculture are expected to continue to increase over time.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: We need to train the trainer about the new 2008 Farm Bill. This is a short-term problem.

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Agricultural & Applied Economics

Emerging Issue: *Investigating Racial and Gender Bias in Farm Service Agency Lending Decisions*

State Issue: Other Issue

Status: Short Term

Description: Over the past decade, numerous lawsuits founded on allegations of discriminatory lending practices were filed against the Farm Service Agency. The complainants claimed differential treatments (vis-à-vis other borrower groups) in the handling, approval and servicing of loan applications. Among the borrowers' complaints are higher probability of denial of loan applications, longer processing times of loan applications, use of more conservative (higher) yield calculation methods resulting in understated projected crop yields, and significant disparity between the loan amount requested and approved (Bennett; Mittall and Powell). While the Civil Rights Action Team (CRAT) created by the government to investigate on the allegations found "isolated cases of discrimination and under service," some allegations are founded on the gross misinterpretation of the notion of FSA lending programs. Discussions with farmers reveal their perceptions of FSA loans as in a similar category as "dole-out" or subsidy payments.

Trend: A class action suit filed by African American farmers (Pigford v. Glickman case) ended in an amicable out-of-court settlement that cost the government over \$960 million in remunerations to successful plaintiffs. Other sporadic, individual racially-motivated lawsuits from some African American farmers were subsequently filed after the Pigford v. Glickman case (Steil). Hispanic farmers also lodged complaints in at least two suits: Williams v. Glickman in 1995 (Bennett) and Garcia v. Glickman in 2000 (Dyckman). Native American farmers succeeded in filing the only other class action suit (besides the Pigford v. Glickman case) against the agency in 1999, which became known as the Keepseagle v. Glickman case (GeorgiaO). None of these, however, experienced the same stature and success as the Pigford v. Glickman case. Moreover, the case Love v. Johanns was filed by female farmers alleging gender discrimination in the implementation of FSA lending programs.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications

Add'l Resources: Lectures at state-level farmer workshops such as those sponsored by Team Agriculture Georgia.

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: ***Animal Identification and Tracking***

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Identifying and tracking the movement of livestock is becoming more important. The ability to identify and trace the movement of animals is important in controlling the spread of diseases as well as in adding value in livestock marketing.

Trend: USDA has developed a National Animal Identification System (NAIS) for tracking animals in the case of a disease outbreak. Producers are encouraged to register premises in this system. Country of Origin Labeling will require that the source of animals be tracked. Export markets like Japan require beef to be age and source verified. Process Verified Programs are developing that require animals to meet certain standards to be acceptable. This requires that animals be identified and tracked. Identification and recordkeeping will continue to be growing issues in livestock production and marketing.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Country of Origin Labeling (COOL) is included in the 2008 Farm Bill.*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Country of Origin Labeling (COOL) is included in the 2008 Farm Bill. This will require retailers to identify beef, lamb, pork, poultry and goat as to country of origin at the retail level. This will go into effect in the Fall of 2008.

Trend: Livestock sold for retail sales will have to be identified as to country of origin. Processed meats and meats sold in food service are exempt. All animals on U.S. farms on or before July 15, 2008 will be considered to be of U.S. origin. While congress has passed the law, regulations are still being developed by the USDA Agricultural Marketing Service. Exactly what producers will need to do to comply with COOL has not been determined. It is expected that AMS rules will be published in summer, 2008. Meat sold at the retail level will have to be identified as to source. This may require producers to provide additional information at the time of sale. Producers who buy and sell livestock will probably be required to maintain records of source of purchases. Agents and producers need to be aware that COOL is coming.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.ams.usda.gov/cool

Primary Contacts: Ronnie Silcox, Animal and Dairy Science, rsilcox@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Forage and Feed Needs and Costs*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Horse owners are seeing the availability of both pasture and hay forages shrink due to drought and other factors. This, coupled with higher feed costs, has increased the costs of maintaining horses. With a shortage of forage, horse owners and managers are looking for alternative sources of forage and are improving pasture forages and production.

Trend: Forage supplies are limited, cost more money and are often of questionable quality for horses in the Southeast. Higher feed costs also factor into an equation where horse owners will be selling or trying to move horses in a market that is already very poor. More work needs to be done to look at alternative feeding and forage programs for horses.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *High Feed Costs are Negatively Impacting Dairy and Livestock Producers*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Dairy and livestock producers are experiencing unprecedented increases in the cost of feed ingredients required for feeding their animals. The high prices of feed ingredients are tied to higher energy costs and increased world demand and are expected to be a factor for the foreseeable future. Since feed represents the primary cost of maintaining animal productivity, livestock producers are looking for more economical alternative feed ingredients and means of reducing or controlling feed costs. Producers must focus on producing the highest quality forage and testing forage so rations can be balanced to meet requirements for growth, milk production and/or reproduction. Rations should be balanced using ingredients that complement the available forage. When producers consider alternative feed ingredients such as byproducts from the food or fiber industry, they should consider the nutrients provided and any special handling or storage considerations before purchasing.

Trend: All feed ingredient prices have increased by 60 to more than 100 percent during the past couple of years. This has occurred during a prolonged drought during which producers had to purchase forage to replace forage they would normally have grown. Average sales of beef cattle were greater than normal last year, especially during the late spring and early summer compared to normal years. More dairy producers have gone out of business during this time as well. As ingredient prices continue to increase and another drought occurs, more dairy and livestock producers will leave the business. These losses will negatively impact local businesses and county governments because of the loss of revenue from dairy and livestock sales.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Horse Management Issues*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: Current and new prospective horse owners have to deal with zoning laws that differ from county to county. Many of these current and new prospective owners have little background or education into land and facility requirements for maintaining horses. This also includes waste management and disposal. The greatest use of horses is for recreation. Recreational activities include trail riding, showing, racing and other timed events such as roping, team penning, etc., and riding at farms or ranches to experience "ranch work." There currently is a shortage of public access trails in Georgia. There is also a shortage of facilities to conduct a multiple day show or competition. More and more new horse owners do not have experience or any type of formal education relating to horse ownership and management.

Trend: It is important that Agents and Specialists provide guidance and recommendations to county commissions to adopt reasonable regulations. It is important that educational efforts continue at the County and State levels to help horse owners and managers understand "best management practices," not only for the horses' welfare but the land and environment as well. It is important that Agents and Specialists provide guidance and recommendations to county commissions and equine organizations for potentially developing public use facilities for trail riding and competitions. Also, this would be an opportunity for privately owned farms other than horse farms to develop recreational opportunities to diversify farm operations. More continuing education courses will need to be developed and offered, possibly looking at levels, i.e. beginning, intermediate and advanced.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Master Equine Management Program

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Improving Reproductive Management in Dairy Cattle in Georgia*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Currently, herds in Georgia continue to strive to improve reproductive management as well as milk production. Our ability to evaluate herd performance and assist Georgia dairy producers in these efforts are essential. We must develop new educational programs and apply new technologies. Trends in poor heat detection levels and low conception levels continue to increase.

Trend: Techniques have been developed to inseminate cows on a timed breeding schedule rather than having to detect animals in standing heat prior to insemination. Current heat detection levels in Georgia are very low, and eliminating some of the need for heat detection could be extremely beneficial to producers and improve overall reproductive efficiency. Heifers do not respond the same as cows to typical ovulation synchronization treatments. Heifers do better with heat detection prior to a set timed AI. More research is needed to evaluate a productive and cost effective synchronization program that is effective for cows and heifers. Herd visits and meetings, workshops, field studies and demonstrations can be helpful. Time of breeding, anatomy, physiology, semen handling, semen placement, semen fertility, tract health and postpartum breeding policies must all be addressed.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.ads.uga.edu

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Increased Input Costs For Livestock (Feed, Fuel, Fertilizer)*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: High oil prices have greatly increased input costs for livestock production. High oil prices increase the price of fuel and fertilizers used in livestock operations. Increased demands for ethanol and bio fuels have driven up grain prices. In addition, floods in the Midwest have also affected feed grain supplies.

Trend: High feed, fuel and fertilizer prices mean that we need to reevaluate livestock production systems. High corn prices mean that alternative feeds will be used to replace corn in traditional livestock rations. While alternative feeds can be used to reduce input cost, there are limitations on how some of these feeds can be used. Using cheap replacements can produce poor results if these feeds are not used properly. Maintaining forage quality and forage testing are increasingly important when prices of supplemental feeds go up. Proper storage and feeding is also increasingly important. With high fuel and fertilizer prices, timing and efficient use of inputs is critical.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: ***Mastitis in dairy heifers and adult cows lowers milk quality, milk production, and farm profitability***

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Mastitis, or bacterial inflammation of the mammary gland, in dairy heifers and cows continues to result in monetary losses to the dairy industry in terms of lost milk production; discarded abnormal milk; reduced milk quality; veterinary fees; costs of medicine, labor, and replacement animals; and reduced salvage value of the diseased animal. In the United States, this disease costs our nation's dairy farmers nearly \$2 billion annually (\$180.00/cow/year), and in the state of Georgia, with 78,000 cows in 270 herds, losses due to mastitis exceed \$14 million per year, which is 5.5% of the annual farm gate value for milk and dairy products (\$234M/yr, 2006). Although control methodologies exist, many producers have no treatment and control programs for their heifers. In addition, control programs for the milking herd need to be improved as Georgia and the rest of the southeastern states continue to compete with the rest of the United States in the area of milk production.

Trend: As milk processors and consumers of dairy products demand higher quality products, pressure will be placed upon Georgia dairymen to improve raw milk quality on the farm. In addition, several agencies have, and will continue, to petition the Interstate Milk Shippers Association to raise the standards of milk quality by lowering the legal threshold of the somatic cell count (white blood cell count) in milk, which is an indicator of the level of mastitis in a dairy herd. Thus, lowering the level of mastitis will reduce the somatic cell counts and increase milk quality. This is a challenge in all southeastern states where heat and humidity are counterproductive to producing large quantities of high quality milk, because these environmental factors favor the development of mastitis. The recent construction of New Zealand style dairies adds to this challenge because such herds are composed of cows that are purchased as cull animals or through dairy herd buyouts, both of which are low quality cows with an increased incidence of mastitis with poor quality milk. Moreover, some New Zealand herds are buying heifers as replacement animals, and if the herd from which they are purchased does not have a heifer mastitis control program, more mastitis will be introduced to the herd.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

Primary Contacts: Dr. Steve Nickerson, Animal and Dairy Science, scn@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Sustaining Aquaculture Profitability*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: Aquaculture, like other animal enterprises, faces critical conditions related to feed and energy cost and import competition. Feed prices have doubled over the past 24 months, energy cost contribute to higher production costs, and imports of Vietnamese and Chinese catfish have depressed the price of catfish. More efficient alternatives for feeding fish are needed that will require feed mills to face new logistical challenges. Local feed ingredients such as peanut meal, wet brewers grains, cottonseed meal, and poultry byproduct meal will be considered in fish diet formulation. Processors of catfish will adopt higher quality standards and add value to existing products in order to compete with imports. Aquaculture enterprises will move away from species with high feed inputs and toward species that can utilize zooplankton, phytoplankton, or forage fish as food. Recreational markets for fish which command a higher price per fish will be used to sustain fish hatcheries as food-fish markets decline in value. These dramatic changes will result in an increased need for technical support from the Extension system.

Trend: Catfish production in the state is following national trends in declining inventories. Private fish hatcheries are adopting new services, including sales of recreational or ornamental fish, fish pond consulting or aquatic weed management. Feeds used for aquaculture are changing to marginally low levels of protein, from 32% to 28% or less, in order to reduce feed costs. The low protein feeds will produce similar growth, but fatter fish than at the higher protein content. Logistical considerations including aflatoxin in peanut meal, moisture in wet brewers grains, and gossypol in cottonseed meal can be managed by careful diet formulation using existing technology if feed mills will agree to utilize these materials. Technology for production of bluegill sunfish and other planktivorous fish is needed to allow fish farmers to transition from feed intensive to less intensive forms of aquaculture. Fish farms sales to new owners will require technical advisement and training for the new owners. In some cases business plans for new enterprises may be prepared with input from the aquaculture specialist and Agriculture Economists.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.cpes.peachnet.edu/aquaculture

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Unwanted Horses*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Currently there are no harvesting plants for horses operating in the United States. It is estimated that prior to closure of the equine harvesting plants that 60,000 to 100,000 horses were harvested annually (USDA estimates based on plant inspections). This means that 60,000 to 100,000 horses are sent to either Canada, Mexico, are adopted, or euthanized. Closing of the harvesting plants will result and has resulted in more abused and abandoned horses. In 2007 complaints of abused horses in Georgia increased by 35% to 1,421 to the State Department of Agriculture.

Trend: This is a national problem that has essentially eliminated outlets for lower priced horses or horses that no longer have a useful purpose such as an infertile broodmare, infertile stallion, or gelding that can no longer be ridden. Consequently unwanted horses have flooded the public sales, some of which are not even bringing a bid as harvest buyers have to ship horses to Canada or Mexico. There are not enough horse adoption agencies to handle taking unwanted horses or horses that no longer have a useful life. The cost of euthanizing along with burial or other means of disposal is prohibitive to many owners.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Bio-security and farm security issues for livestock producers*

State Issue: Agrosecurity

Status: Long Term

Description: Food safety continues to be a major concern in the United States. Food producers are the front line of defense against the contamination of the food supply. Keeping the farm and the products of the farm safe and secure requires a strong bio-security plan. Producers need to be aware of potential bio-security hazards and how to avoid and prevent them.

Trend: Producers are being held more accountable for food safety and security with each passing year. Consumers expect that food produced in the United States will be safe and wholesome. Maintaining bio-security on a livestock operation is critically important to prevent the introduction of various disease pathogens. Producers must be aware that livestock operations are a potential target of terrorists. It is an ongoing process to train producers to be vigilant in maintaining the security of their farms and the food supply.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Animal & Dairy Science

Emerging Issue: *Uncertainty of EPA AFO/CAFO regulations*

State Issue: Conservation & Management of Natural Resources

Status: Short & Long Term

Description: EPA has issued a February 2009 deadline for confined animal feeding operations (CAFO) to be in compliance with the federal NPDES regulations. However, the modified regulations have not been released and CAFO operators do not know what they have to do to be in compliance.

Trend: EPA released the confined animal feeding operation (CAFO) regulations in spring 2003. Due to litigation, EPA has been required to modify parts of their regulations. EPA has made the modifications and accepted public comments on the changes. They have set a compliance deadline of February 2009 for these regulations but have not set a release date for the final regulation. Once the final regulation is released, Georgia Environmental Protection Division is responsible for interpreting the regulation and making state specific changes. EPD is also responsible for implementing and enforcing the new regulation. This is a very short time frame for the regulation to go through all these steps, and will make it difficult to ensure all Georgia CAFOs are in compliance by February 2009. County agents need to be aware of the regulations and be prepared to respond to the educational demand. Extension will be relied on heavily to educate our clientele on these regulations and what they mean to producers.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: EPA's CAFO regulations webpage - http://cfpub.epa.gov/npdes/afo/cafofinalrule.cfm?program_id=7

Web Page: www.agp2.org/aware/

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: *Chemical Application Efficiency*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: The application of chemicals (pesticides and fertilizers) play a significant part in the production of Georgia's food and fiber products. Chemicals are used to increase production and control or suppress pests. Pesticides and fertilizers are either incorporated into the soil or applied to the foliage. Correct chemical application is necessary for maximum crop production. Spray drift and proper chemical calibration are a concern with applicators, growers and the non-farming community. Pesticide application errors are potential methods for water contamination and nearby crop contamination.

Trend: Chemical applicators must apply products according to label directions. Pesticide labels specify droplet sizes for application of the material. Spray drift onto neighboring crops or non-labeled areas can be avoided by proper spray nozzle selection. Chemical application equipment is continually changing. New types of spray nozzles have become available for drift reduction. There is a continuing need to re-certify applicators and to update users on applicator techniques.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Educational programs will be available to demonstrate spray drift, coverage and selecting proper spray nozzle for each type of chemical application. Also, sprayer and fertilizer calibration clinics will be available for growers and commercial applicators

Web Page: www.tifton.uga.edu/spray

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: *Impacts of Climate Variability*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Item 1: An increase in the incidence of plant diseases such as Tomato Spotted Wilt Virus (TSWV), white mold and Asian Soybean Rust (ASR) has caused severe economic impact on Georgia's crop production. The variation in disease severity and level of damage can be partly attributed to changing weather patterns during the growing season, and perhaps due to inter-annual climate variability. A better understanding of climate and weather patterns effects on the incidence and severity of these plant diseases is important and necessary for developing a comprehensive management strategy. Item 2: Potential environmental impacts of the shift towards corn production will depend on the extent of the area shifted, management practices, especially N fertilization, weather patterns, and the extent and duration of drought conditions. Potential negative impacts of increased water withdrawal include groundwater quality degradation from increased amounts of applied N fertilizers, declining ground water levels as a result of increase water use for irrigation, and increased surface runoff.

Trend: Item 1: In 2005, TSWV reduced Georgia peanut crop value by 7.5%, accounting for roughly \$31.7 million in crop damage. Crop damage due to white mold increased from approximately \$6.9 million in 2002 to \$19.2 million in 2006. Estimated economic losses due to soybean rust in the U.S. could range between \$240 million and \$2 billion, depending on the severity and extent of ASR outbreaks. Inter-annual climate variability, varying weather patterns between locations, as well as impact of temperature and moisture prior and during the growing season are critical for the development of diseases, population dynamics of the insect vectors (thrips linked to TSWV), and dispersion of spores (linked to ASR). Item 2: The current trend in the Southeast is to shift cropland currently used for peanut and cotton production to corn, largely for bio-fuel (ethanol) production. Seasonal climate variability and shift in farm acreages for corn production will likely put pressure on surface and ground water supply, as well as water quality especially in South Georgia. There is a need to examine the impacts of different management and climate scenarios, including El Niño-Southern Oscillation (ENSO) phases, on crop yield response, water use, and water quality. Crop models coupled to a GIS basin-level hydrologic/water quality model can be used to simulate biomass production, hydrologic and water quality outcomes under alternative cropping scenarios.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Speakers and Presenters for County-based Training Opportunities

Web Page: www.agroclimate.org; www.georgiaweather.net

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: *Sustainable Agriculture and Rising Input Costs*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: High input costs for farmers are putting increasing pressure on profitability. Increased fuel, fertilizer and pesticide costs have farmers looking for alternatives.

Trend: The goal of sustainable agriculture is to develop a farming system that relies less on non-renewable resources and more on biological practices in order to have a profitable operation. In row crop production, these farming systems use practices such as legumes to supply nitrogen, cover crops to scavenge and retain nutrients in the soil, reduce nematodes, and improve weed control. These systems include crop rotations to break pest cycles, and reduced tillage with cover crops or intensive cropping to build soil organic matter. These practices can save trips across the field and reduce fuel costs, improve water infiltration and reduce irrigation costs, and possibly reduce other input costs. These systems require a long-term approach to profitability. Farmers may need to be looking for a three to four year rotation that would reduce input costs and maximize profit rather than focusing on maximizing yield over one growing season. County agents can assist by conducting programming in this area.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: *Energy Cost Crisis*

State Issue: Agricultural Profitability & Sustainability and Other: Conservation of Natural Resources

Status: Short & Long Term

Description: The skyrocketing cost of energy in all forms have created both opportunities and problems. Increased energy costs have made the installation of energy conservation measures and, in some cases, alternative fuels more economically attractive. They have also made economic survivability a matter of concern for many producers. An additional effect is that many people are looking for solutions through solutions that have not been fully evaluated or developed, and many times there are vendors in the marketplace who are ready to take advantage of this trend.

Trend: The most immediately available technologies to reduce energy costs on farms are energy conservation technologies. These include modifications to poultry houses, irrigation systems (row-crop, greenhouse, and home-owner), and dairies. These technologies are well researched and documented and are immediately available. We have seen and expect to continue to see an increase in interest in alternative fuels including on-farm production of bio-diesel, anaerobic digestion of poultry litter or other animal manures, and solar energy. Some individuals that have a source of cheap or free fat products have done very well at making bio-diesel on a small scale, however there are limitations for this process, both on a quality control basis and due to the question of a continuous availability of cheap feedstocks. Anaerobic digestion (methane production) is a possibility for some producers, but it is most likely to be feasible for dairies. This would involve a large investment, and a number of factors must be present in order for the economics to work out. Solar is still generally not economically justifiable if electricity from the grid is available, however there are some instances where solar energy can be justified including watering of livestock at remote locations and possibly heating water.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.poultryventilation.com

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: *Rain Water Harvesting Technology*

State Issue: Conservation & Management of Natural Resources

Status: Long Term

Description: As water use for landscape irrigation is becoming more restricted in Georgia, citizens are looking for alternative water sources. Rain water harvesting from buildings such as homes, commercial and institutional buildings is one feasible alternative. Rain water harvesting is not a new technology, but its use in humid climates such as Georgia is unusual. Rain water harvesting requires a system of capture, storage and distribution equipment.

Trend: When the Georgia Environmental Protection Division restricts outdoor water use during droughts, it is difficult to sustain landscapes or establish new ones. Alternative sources of water are needed if any irrigation will occur. In addition, using water for other activities such as livestock or pet watering, household use, or industrial applications may be limited or more expensive. New information on harvesting rainwater is needed and agents may be requested to provide outreach or education programs on this topic. In addition, homeowners may begin requesting assistance in selecting, designing, and maintaining these systems

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: ***Transporting Nutrients in Animal Waste from Areas of Intensive Livestock Production to Row Crop Land***

State Issue: Conservation & Management of Natural Resources

Status: Short Term

Description: With the high cost of fertilizer, row crop producers need access to alternative nutrient sources. Animal manures contain the needed fertilizer nutrients along with organic matter, but the logistics, incentives, and infrastructure for a permanent transport program is not currently available in Georgia.

Trend: Historically row crop producers have preferred using commercial fertilizer over animal manures due to convenient accessibility to local suppliers and ease of handling. With increasing fertilizer cost, producers will need to find alternative lower cost nutrients to remain profitable. Poultry litter is one excellent alternative, however transportation cost has deterred some producers from using this resource. But as fertilizer costs increase, the value of the nutrients in the litter will be able to offset some of the transportation cost and encourage more litter use on row crops in the future. With the use of alternative nutrient sources, producers will have to change the way they calculate application rates to achieved desired production. County agents will be relied upon to make application recommendations for row crops receiving these nutrients.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.agp2.org/aware

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: ***Water Use Restrictions for Georgia's Industrial, Commercial and Institutional (ICI) Sector***

State Issue: Conservation & Management of Natural Resources

Status: Short & Long Term

Description: In January 2008 the Georgia Comprehensive Statewide Water Management Plan (GCSWMP) was enacted to guide the state in managing its most valuable natural resource in a sustainable manner in the coming decades. At the same time Georgia continues to be faced with the effects of severe drought in many parts of the state. As a result Georgia's Industrial, Commercial and Institutional (ICI) Sector will in the short and long term be faced with potential water use and wastewater discharge restrictions in which water use efficiency and wastewater treatment will have to be continually increased to allow for sustainable economic growth in the state.

Trend: Georgians use an estimated 6.5 billion gallons of water a day to supply homes and businesses (~2.0 bgd), irrigate agricultural crops (~1.5 bgd) and generate electricity (~3.0 bgd). In January 2008 the Georgia Comprehensive Statewide Water Management Plan (GCSWMP) was enacted to guide the state in managing our most valuable natural resource in a sustainable manner in the coming decades. One of the primary goals of the GCSWMP is to establish the Sustainable Yield (the amount of water that can be withdrawn from a water source without causing harm) and the Assimilative Capacity (the amount of pollution a water source can receive before water quality degrades) of every water source in Georgia. Based on this information, 11 Regional Water Councils (RWCs) will determine current and future water quantity and quality demands for their specific area of Georgia. If water quantity and/or quality demands outweigh the sustainable yield or assimilative capacity for in a region, then water use and/or wastewater treatment restrictions will be potential tools utilized by the RWCs to fill the gap. In response to potential water use restrictions, Georgia's Industrial, Commercial and Institutional (ICI) Sector must begin now to identify water demand management practices that will increase their water use efficiency. These practices include water conservation, including water reuse through reclaimed water systems. Likewise in response to potential increased restrictions on wastewater treatment discharges, the ICI sector must begin now to identify enhancements to current technologies, as well as new wastewater treatment technologies to meet future water quality demands. Georgia extension agents with active ICI sector activities can act as a point of contact for ICI clients needing individual assistance and consultations involving water use and/or wastewater treatment, as well as provide a base for County Based Trainings that are applicable to multiple facilities within a county or region.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.outreach.engineering.uga.edu; www.poultry.uga.edu

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: *Identifying and Utilizing Agricultural Waste as Renewable Energy Feedstocks*

State Issue: Other: Alternative Energy Sources

Status: Short & Long Term

Description: As we in Georgia and the U.S. are looking for renewable energy sources, corn, soybeans and wood are high on the list of things to be used. However, there are vast amounts of agricultural waste products (cotton stalks, peanut hulls, animal waste, fruit and vegetable waste, fruit and nut tree waste, etc.) that potentially could be feedstocks for renewable energy production.

Trend: As Georgians continue to use agricultural commodities such as corn, soybeans and timber for the production of renewable fuels the need to look at lesser thought of agricultural products should be considered. The production of a specific crop (corn, soybean, timber) fills some needs of producing alternative energy; however, these products will have higher costs than waste materials. One potential source of renewable resources that should be considered is the waste products produced in the production of agricultural products. These may include but are not limited to cotton stalks (can be harvested from the field annually), peanut hulls (produced yearly as the peanuts are shelled), fruit and vegetable waste (produced annually from culling at packing sheds and from unharvested materials in the field) and fruit and nut tree trimmings (generally annual trimmings). These products are typically thought of as waste products that cost money to dispose of, but could potentially be used as feedstocks if the characteristics were known. Characteristics consist of transportability, energy content and availability. Technologies for converting these wastes are available but need to be explored on a site specific basis. Cooperative Extension can play a critical role in providing education and technical assistance in evaluating the feasibility of using these materials as alternative energy sources.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Biological & Agricultural Engineering

Emerging Issue: ***Migrant Worker Safety***

State Issue: Worker Education & Safety

Status: Long Term

Description: The Hispanic and migrant population is growing. Currently 7.1% of Georgia population is Latino. The migrant workforce is providing a majority of the labor in Georgia for fruit and vegetable harvesting and packaging. These workers are rarely provided training to reduce risk of injury and illness. Some of the safety issues are back injuries, heat related illness, nicotine poisoning, severe cuts and exposure to lightning. In addition, equipment related injuries are becoming more prevalent.

Trend: The majority of the migrant workforce speak only their native language. Bridging the language barrier is one of the primary issues with providing adequate safety training. In addition, many are not aware of their rights under the 5A1 General Duty Clause of the Department of Labor safety regulations. Many also fear loss of job if they are injured and continue working through injuries and illness, sometimes making their condition worse, permanent or life threatening. To help improve safety for migrant workers, more materials must be made available in their native language, both in written form and as video, on safety issues such as correct lifting and carrying techniques and equipment safety. Materials developed as part of a package that is made available to all migrant workers could be distributed through county extension offices, migrant health clinics, and the medical community in general.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Agribusiness & Economic Development

Emerging Issue: *Agribusiness Alert: Changing Prices Alter Consumer Patterns*

State Issue: Agribusiness Development/Value Added

Status: Short Term

Description: Value added food product development, marketing, and sales have emerged over recent decades as another way for producers and agribusinesses to capture additional profits and diversify their businesses or even save the family farm. Recent increases in gas and food prices are revealing that consumers may be altering some longstanding habits, which may change the environment for value added food product development.

Trend: A recent report from the Economic Research Service (ERS) (The U.S. Food Marketing System: Recent Developments, 1997-2006, May 2007) shows that from 1997 to 2006 heightened competition for the consumer food dollar and other trends resulted in a general short-term decrease in food prices during that time period. The emergence of food supercenters and other non-traditional food sellers, along with the dramatic growth of specialty or fresh food markets remarkably altered the landscape of food processing, manufacturing, wholesaling, retailing, and consumption – a grouping referred to as the food marketing system by ERS. Over the same time, there were ongoing trends showing increased purchase of food away from home, emphasis on convenience or quick preparation along with an increased awareness of health attributes and food safety – encompassing the organic and locally-grown food movements. However, very recently, with increases in both fuel and food prices, many consumers are altering their shopping patterns. According to a recent Nielsen study (Running on Fumes: High Gas Prices Are Changing Consumer Shopping Patterns, March 2008), it is more important than ever for business owners to increase awareness of their target markets and how their consumers might be altering their shopping patterns as a result of these new and increased expenses. A testimony to this can be seen in the finding of how these increased prices affect lower income households more dramatically. As a result, this might affect food spending habits, how far a consumer will drive to purchase a particular product, package size (i.e. “economy” size), or other patterns critical to the business owner’s success. Further knowledge of these evolving consumer patterns can alert agribusinesses not to take for granted consumer desires in a changing economic environment.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Additions to workshops providing new information about changing consumer patterns.

Web Page: www.caed.uga.edu

Primary Contacts: Sharon Kane, Center for Agribusiness and Economic Development, spkane@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Agribusiness & Economic Development

Emerging Issue: ***Agribusiness Dynamics due to Changing Markets for Agricultural Commodities***

State Issue: Agribusiness Development/Value Added

Status: Long Term

Description: Agribusiness opportunities are closely related to market conditions for commodity outputs and inputs used in production. Georgia agribusiness is important for the Georgia economy with food and fiber manufacturing the largest component of the state manufacturing sector. Increased output prices offer enhanced opportunities for producers while increased input prices present challenges to maintain profitability.

Trend: Agricultural commodity prices are increasing for Georgia products that have historically been secondary choices for farmers. Current and expected future prices received for corn, soybeans, and wheat lead to net returns that surpass cotton and peanuts. Georgia agribusiness infrastructure is focused on cotton and peanut processing and value-added manufacturing. Continued high prices for corn, soybeans, and wheat could take more acreage from cotton and peanuts. The challenge is to maintain agribusiness opportunities for cotton and peanuts while expanding opportunities for corn, soybeans, and wheat. Increased production costs, especially fuel, could impact production practices, as well as manufacturing by agribusiness. There are three examples of expanding agribusiness opportunities. 1) Most Georgia cotton is exported for manufacturing into finished textile products that are then imported into the U.S. Increased shipping costs could lead to opportunities for more textile manufacturing within Georgia from cotton produced in the state. 2) Georgia's substantial animal production industry could provide markets for the increased feed grain production. Processing capacity would have to increase as these opportunities arise. 3) Organic production of food products have fewer input expenses than conventionally produced food. Increased input costs for conventionally produced food could open marketing opportunities for organic products.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications

Primary Contacts: Archie Flanders, Center for Agribusiness and Economic Development, archief@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Agribusiness & Economic Developme

Emerging Issue: *Cooperative Development for Emerging Specialty Crops*

State Issue: Agribusiness Development/Value Added

Status: Long Term

Description: Profit margins for many traditional agricultural crops continue to narrow as input costs for fuel, feed, seed, fertilizer, etc. increase. As a result, many producers of traditional commodities are exploring ideas for producing specialty crops such as blueberries, chestnuts, pomegranates, kiwis, olives, and so on. Numerous part-time and hobby farmers are also looking for non-traditional crops that will generate supplemental income. Individual, small producers face significant challenges in developing markets for and value added products from their crops.

Trend: An emerging trend in this area of specialty crop production is renewed interest in farmer owned cooperatives that can amass large enough quantities of specialty crops to access significant marketing opportunities while using the power of a cooperative to negotiate and maintain prices that provide a positive return on investment. Such cooperatives may also be able to raise the capital required for investment in processing facilities, equipment, marketing, and research necessary for development of value added products derived from specialty crops. It is anticipated that this trend will continue to develop as producers search for and experiment with new crops, as well as add value to some more traditional commodities through market segmentation based on organic, local, natural, and environmentally friendly production methods. Education in cooperative development, cooperative principles, coop business management, and evaluation of competitive and financial feasibility of coop operations is expected to become increasingly important in many rural counties. County Extension programs may increasingly be called upon to assist producers in determining whether a cooperative is an appropriate business model feasible from both technical and economic standpoints.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.hosting.caes.uga.edu/gacoop/

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Agribusiness & Economic Development

Emerging Issue: *Economics of Renewable Energy*

State Issue: Agribusiness Development/Value Added

Status: Short & Long Term

Description: Current interest and incentives in the renewable energy arena coupled with the economic impact of high energy prices will continue to create issues and opportunities for focus on the economics of renewable energy in the short and long term.

Trend: Issues in the short-run include assessments of the current infrastructure and suggestions for short term solutions as the acreage situation equalizes—crop rotations, grain supply/demand, and livestock feed by-products. Increased direct costs of production, including fuel and fertilizer, provide opportunities for agribusinesses to focus on new technologies to improve efficiencies and provide cost savings to producers. The feasibility of production and implementation of new technologies must be considered. Intermediate or medium term issues related to renewable energy include the impact from the expansion of grain acreage and the stress that will be placed on existing infrastructure in the state. As the fuel and food industries find a balance, possible solutions must be considered to best fulfill the needs of grain producers, consumers, and, at the same time, enhance Georgia's economy. Economic analysis of alternative feedstocks must be considered as well as cooperative efforts of local communities to meet energy needs from alternative sources. As farm bill policy shifts to a more "green focus" and renewable energy interest shifts toward "advanced biofuels" there will be a need to focus on maximizing opportunities for producers and agribusinesses to capitalize on potential income streams for conservation and natural resources. What do individuals need to know to maximize these opportunities? What, if any, new business opportunities exist? Are businesses currently overlooking opportunities to enhance their bottom line?

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.caed.uga.edu

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Agribusiness & Economic Developme

Emerging Issue: *Financial Management for "Agripreneurs"*

State Issue: Agribusiness Development/Value Added

Status: Short Term

Description: As more agricultural producers transition into entrepreneurs, or "agripreneurs," there is an increased need for an educational series focused on financial management.

Trend: Most agricultural producers are experienced on the production aspect of their operation and often leave the financial analysis up to their accountants or financial planners. However, as more producers develop into "agripreneurs", often out of necessity, a financial management educational series with a focus on new and expanding agricultural related businesses would be beneficial. The platform would be to build on the success seen with the direct marketing of livestock and starting a new food business programs, but with greater focus on the financial management—from feasibility analysis, to record keeping, to preparing financial statements and understanding financial ratios, to tax implications. A portion of this program would provide an educational series related directly to QuickBooks. The purpose would be to provide the tools required to increase the likelihood of success of the new agricultural ventures.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.caed.uga.edu

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Agribusiness & Economic Developme

Emerging Issue: *Value Added Opportunities for Agriculture*

State Issue: Agribusiness Development/Value Added

Status: Short Term

Description: Current economic conditions require that agricultural producers seek opportunities for value added agriculture to enhance profitability and economic sustainability rather than relying on commodity based agriculture. Producers need to be aware of the economic feasibility of new ventures as well as funding sources available to help analyze and implement the ventures.

Trend: As changes in agricultural policy continue to affect southern agriculture, traditional commodity producers and rural communities will have to seek innovative ways to transition from primarily commodity based to more value-added focused agribusinesses. These changes provide opportunities for CAED to be at the forefront to provide services to evaluate opportunities and their impact, as well as, educate individuals of potential opportunities and the importance of being better agribusiness leaders. Now is the time to broaden the mindset of agricultural producers and provide leadership in developing programs to help further rural economic development. As new agribusiness opportunities continue to arise and potential entrepreneurs pursue new ventures, a focus on potential funding sources and grant opportunities needs to be explored and educational programs designed and delivered. Focus needs to be placed on not only sources available, but also on assistance on how to apply and steps to take to maximize opportunities.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.caed.uga.edu

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Urban Agriculture

Emerging Issue: *Addressing Urban Agriculture Issues*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: The UGA Center for Urban Agriculture continues to address challenges associated with the rapid urbanization of Georgia. These include: Improving professional proficiency in urban ag industries; Supporting urban ag industries and associations through industry leadership training; Supporting urban agent and industry needs through locally generated programming; Enhancing urban forestry, water quality, and landscape and turfgrass programming; Developing a land use training program; Developing an environmental quality program.

Trend: This broad spectrum of audiences requires targeted and timely information from UGA. A significant amount of Center resources have been invested and will continue to be invested in issues resulting from the recent drought. These issues include outdoor water use registration, the development of BMPs for Landscape Water Conservation, the statewide Water Conservation Implementation Plan, developing professional certification educational and testing programs, and assessing the economic impact of the drought on urban Ag industries. Future water quality issues relating to soil erosion and sediment control, stormwater management, on-site waste water management, water quantity and conservation issues in outdoor water use and irrigation systems, and suitable landscape vegetation will occupy significant time and resources. The Center will continue providing leadership in core programs which address environmental quality and quality of life issues in the state.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: N/A

Primary Contacts: Gil Landry, Center for Urban Agriculture, glandry@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Center for Urban Agriculture

Emerging Issue: *Landscape Water Conservation and Public Policy*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: The Georgia General Assembly passed the Comprehensive Statewide Water Management plan in 2008. The plan includes the development of regional water planning councils and water conservation implementation plans to serve as guidelines. Local and State outdoor water use rules have become more complex and a significant amount of public education will be needed to encourage compliance and to conserve this limited resource.

Trend: A significant amount of Extension faculty time has already been invested in development of Best Management Practices, cooperation with professional associations and regulatory agencies, and public education through the Extension Banner Programs on Water Conservation. The next 2-5 years will be critical for policy development and public outreach. The Center for Urban Agriculture is well positioned to continue providing leadership in this area.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Crop & Soil Science

Emerging Issue: *Decentralized Wastewater Systems*

State Issue: Conservation & Management of Natural Resources

Status: Long Term

Description: Issues around use of decentralized wastewater treatment and dispersal include consumptive use, ground water protection, and housing development density. Use of soil science concepts coupled with engineering technology can be used to address most of these issues. Concerned groups include individual homeowners, communities, watershed protection groups, and neighboring states. Use of decentralized wastewater systems will continue to be the first choice for about 40% of new housing in Georgia for the foreseeable future. The presence of pharmaceuticals, steroids, hormones and other compounds in surface water bodies recently documented by the USGS are also of concern. Fate of these 'contaminates of emerging concern' is undocumented in decentralized wastewater systems.

Trend: The need for education and technical assistance surrounding these issues will continue to grow. Agents and other in the community will need to make informed decisions regarding growth and operation and maintenance of existing on-site waste water systems.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: UGA offers regular continuing education courses for septic tank installers as well as DHR professionals responsible for regulating and inspecting septic systems.

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: *Chili thrips (Scirtothrips dorsalis), an Invasive Pest of Ornamental Plants*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: The chili thrips is considered established in Florida, and has become a serious pest of many important landscape plants. In its native range of south Asia, this thrips is an important pest of vegetables, cotton and roses. Due to the widespread occurrence in Florida, it is almost certain that this pest will move by commerce (especially in the ornamentals trade) or travel into Georgia and other southeastern states. Chili thrips has been detected in three counties in Georgia so far.

Trend: In addition to the threat chili thrips pose to nursery crop production and installed landscape ornamentals, there is also a serious threat to important crops like cotton and peanut. Initial detections have been in nursery and garden centers, probably due to the large volume of ornamental plant material moving from Florida in the normal course of business. These thrips are fairly mobile, and it is likely that there will be natural spread into south Georgia as well as out from undetected point introductions such as might occur when individuals purchase plants in Florida and return with them to their homes in Georgia. The thrips are very small, and their damage resembles herbicide damage more than typical thrips damage. County Agents and other plant industry professionals must become aware of the threat chili thrips pose and alert to the symptoms caused by feeding of this new pest.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations

Primary Contacts: Will Hudson, Entomology, wghudson@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: *Development of Resistance to Plant Incorporated Protectants (Bt Cotton) and Insecticides by Cotton Insect Pests*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: Insecticide resistance risks in a particular class of insecticide increase each time that class of insecticide is used. Regular, especially repetitive, use often prompts resistance, seen as reduced effectiveness. Integrated pest management programs strive to reduce insecticide use, which has both environmental and economic advantages. By reducing insecticide use, the longevity of insect control technologies is extended. Other management considerations such as rotation of insecticides and other insect resistance management strategies are also implemented to extend longevity of insect control technologies. Throughout history, insecticide resistance has typically developed after about 10 years of use targeting a particular pest. Bt transgenic cotton is often referred to as a Plant Incorporated Protectant or PIP. Bt cotton is planted on over 90 percent of the cotton acreage in Georgia and provides excellent control of tobacco budworm and good control of corn earworm (supplemental treatment of corn earworm with insecticide is sometime needed). Bt cotton provides continuous season long activity against target pest, thus there is a high potential or risk of these pests to develop resistance. Resistance to conventional insecticides is also a concern due to relatively few new modes of action being developed during recent years.

Trend: Bt cotton was commercialized during 1996. To date, no field control failures have been observed due to resistance development. However, a recent study suggested that resistance has developed to Bt cotton in select populations of corn earworm in the U.S. Monitoring of susceptibility of Bt cotton target insects will be extremely important. If resistance were to develop to Bt cotton, it would have a significant impact on cotton IPM programs. Tobacco budworm has developed high levels of resistance to the pyrethroid class of insecticides in Georgia and is a primary reason such a high percentage of cotton planted is Bt cotton which provides excellent control of tobacco budworm. Effective alternative insecticides are available for control of tobacco budworm, but they tend to be more costly (\$2-3X) compared with pyrethroids. During recent years, we have observed a gradual decrease in the susceptibility of corn earworm to the pyrethroid insecticides; field control failures occurred during 2005. Alternative insecticides are available but tend to be more costly and less efficacious for control of corn earworm. Bug pests, such as stink bugs, have become common pests in the Bt cotton production system utilized by Georgia cotton producers. Relatively few new modes of action have been developed in recent years which have activity on stink bugs. Older insecticides are typically used for control of stink bugs. These active ingredients are highly efficacious at this time. Resistance development and the potential loss of registrations of currently used insecticides for control of stink bugs are a concern.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.ugacotton.com

Primary Contacts: Phillip Roberts, Entomology, proberts@uga.edu

Add'l Contacts: UGA Cotton Team

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: *Fruit Insect IPM*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: International trade offers considerable opportunity to Georgia growers. Phytosanitary restrictions are often required to minimize the risk of inadvertently sending or receiving exotic pests. Increases in movement of plant materials from abroad through Atlanta's Hartsfield Airport (\$30 million in January 2008) and our ports can be very rapid. Export opportunities place similar demands on College, State and Federal taxonomic and IPM resources.

Trend: Additional educational and policy efforts are needed long-term to encourage allocation of resources for taxonomic expertise, most likely through our State Department of Agriculture. University work in support of export efforts is also needed.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations

Add'l Resources: Speakers and presentations for state and regional training opportunities

Primary Contacts: Dan L. Horton, Entomology, dlhorton@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: *Honey Bee Decline*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Honey bee populations have been declining since the 1940s. This trend is reflected in declining numbers of managed hives, reduced overwintering survival, and increased rates of queen loss or replacement. The causes include reduced bee forages, exotic pathogens and parasites, environmental toxins and pesticides, and stress-inducing commercial beekeeping practices. The most detrimental societal impact of bee decline is reduced pollination of bee-responsive crops. Pollination is a deliberate input in many agricultural systems, but there is a significant and largely unmeasurable benefit from background pollination provided by bees that are wild or kept by honey producers. Bee-pollinated crops virtually define the difference in diets between wealthy countries and poor. Bee-pollinated crops provide forage for meat and dairy animals as well as fruits, melons, vegetables, and berries that are luxuries, not staples. Hence, honey bee decline is a direct threat to our quality of life.

Trend: Bee decline achieved national attention in 2007-2008 with two successive winters of significant colony loss. This triggered political pressure to increase federal research and extension funding in hopes of reversing bee decline. Researchers are focusing on bee viruses and pathogens - alone and interacting, basic bee toxicology with new chemistries, Varroa mite IPM, and genetic improvement of bees employing the honey bee genome database and marker-assisted selection. Beginning in 2008 there are two nationally-coordinated research efforts, one with the USDA ARS bee labs and another largely composed of universities. The two groups will be pooling efforts to reach extension audiences with new information streaming from the research centers.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Research presentations, Research publications, Electronic newsletter:
www.ent.uga.edu/bees/Newsletter/Newsletter.htm, Popular articles in beekeeping trade journals.

Web Page: www.ent.uga.edu/bees/

Primary Contacts: Keith S. Delaplane, Entomology, ksd@uga.edu

Add'l Contacts: Jennifer A. Berry, Entomology, jbee@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: *Insect-Vectored Plant Viruses*

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: Insect-vectored plant viruses appear to be occurring more frequently with severe impacts on commercial production.

Trend: Insect-vectored plant viruses effect production in multiple cropping systems in Georgia. While tomato spotted wilt virus has deservedly received the majority of attention in the past decade, other insect-vectored virus problems have been appearing more frequently, often with disastrous effects in local areas. Examples include cabbage leaf curl virus, which effectively eliminated the entire fall cabbage crop in Colquitt County in 2005, and tomato yellow leaf curl virus, which reduced production of fall tomatoes in Tift County by more than 50 percent in 2007. In addition to problems encountered in Georgia, surrounding states (particularly Florida) have experienced severe problems with viral diseases not yet detected in Georgia, but likely to occur here in the future.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations

Primary Contacts: Alton N. Sparks, Jr., Entomology, asparks@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: ***Pesticide Resistance***

State Issue: Agricultural Profitability & Sustainability

Status: Short & Long Term

Description: Resistance of pests to pesticides has long been an ongoing problem, but resistance problems appear to be accelerating, with severe resistance problems occurring in weeds, plant pathogens and insects.

Trend: While pesticide resistance is not a new or emerging problem, it does present new challenges for producers. Where alternative chemistry is being developed, these newer products tend to be much more expensive and are generally more selective or limited in the scope of pests controlled. Thus, loss of efficacy of one product may require the use of two or more expensive products as an alternative. Resistance management is emerging as a new economic challenge as well as an old production challenge.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: ***Georgians' Lack of Familiarity with Common Pests***

State Issue: Other: Pet and Personal Health and Well-Being

Status: Long Term

Description: For the first time in history, more than half of the world's population lives in cities. Similarly, Georgia's metropolitan areas continue to grow, yielding a population with little connection to rural experiences. People moving to the state from elsewhere frequently are unfamiliar with insects and other arthropods (such as ticks, centipedes, scorpions, etc.) native to the area. Many of the blood-sucking arthropods (mosquitoes, flies, fleas, ticks, lice, mites, etc.) that affect wildlife can also cause problems for pets and people.

Trend: Extension continues to receive samples from clients concerned about Lyme disease, Rocky Mountain Spotted Fever, West Nile Virus, and other arthropod-transmitted diseases. Because many of our citizens are not acquainted with multi-legged creatures they encounter, frequently these individuals react inappropriately, either ignoring valid risks or over-reacting to perceived risks. For instance, we have received ticks from people who thought they were bed bugs. Clients have asked what's the difference between ticks and fleas. Obviously, correctly identifying the pest and understanding pertinent points of its biology is crucial to properly dealing with the problem. Extension at both the county level and statewide will have to address this new clientele group, recognizing their lack of understanding and unfamiliarity with common Georgia insects. No longer can we assume that most of our callers know that ticks do not have wings and so cannot fly. And, even worse, frequently we will have to spend additional time correcting misinformation they have acquired from various unreliable web sites.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: ***Untrained Pesticide Applicators in Schools, Child-Care Centers and Public Properties***

State Issue: Other: Potential Pesticide Exposure in Public Areas

Status: Long Term

Description: Many municipalities, parks, schools, etc. assign pest management activities to their employees instead of contracting with a pest control company. Federal and state pesticide regulations require little oversight of pest management activities in these situations. Employees may apply any general use pesticide to school grounds, city property, libraries, parks, etc. with no training in integrated pest management or pesticide safety. No pesticide application records are required, and no federal/state inspections are conducted unless an accident or misuse is reported. In summary, a large but unknown number of untrained applicators are using pesticides in public areas across the state, increasing the risks to the environment and human health.

Trend: The problem has been exacerbated by numerous incidents of pest control companies misapplying pesticides in schools. The Georgia Department of Agriculture has punished some companies severely with large fines and other actions. As a result of these problems, many companies are refusing school contracts; they do not think the profits justify the potential liability. Additionally, increasing operating costs are forcing municipalities, schools, and other agencies to trim their budgets. Pesticide contracts may be viewed as an expense that could be covered more cheaply by employees, particularly since some pest control companies are reported to be misusing pesticides. We have begun a new program (GCAPP) to provide training for pesticide applicators that are not required to have training. Although the program is voluntary, we expect a large demand. Untrained pesticide applicators place cities, parks, schools, etc. at greater liability because of the potential for human exposure.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Entomology

Emerging Issue: *Urban Entomology*

State Issue: Other: Urban Entomology

Status: Short & Long Term

Description: Problems associated with arthropod pests of the urban environment are continuously emerging. It can be argued that these problems are ongoing and persistent from year to year, mainly because of Georgia's population growth in urban and suburban areas. Georgia is the second most populated state in the Southeast. From 2005 to 2006 Georgia was the fourth-fastest growing state in the U.S. During that one year period, 231,388 people moved into the state, bringing Georgia's population to 9,363,941. From 2000 to 2006, Georgia's population grew by about 1.2 million; during the same period, only Arizona and Nevada grew faster. Urbanization often leads to problems directly associated with insect pests found in the urban environment. Each year, over 1,000 pest management firms in Georgia serve the diverse needs of Georgia homeowners and businesses. In 2007, for instance, 1,209 pest management firms in Georgia employed 6,905 licensed individuals (2,039 certified operators and 4,866 technicians), excluding secretaries and other office personnel; 99 new pest management firms were started in Georgia in 2007.

Trend: 2007 Topics Important Nationally and Regionally: The Evolution of the Bed Bug Problem: Insecticide Resistance, Liability, BB Spread (nationally), Lack of Reliable Control Options; Pest Management in Schools (Georgia); The Evolution of Green Pest Control Services (both nationally and in Georgia); Formosan Termites (regionally and in Georgia); Softening Termite Control Market: lack of termite swarms and a weak housing market.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.gabugs.uga.edu

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: ***Economic Collapse of the Greenhouse Industry Caused by Drought, Fuel Costs & Recession***

State Issue: Agribusiness Development/Value Added

Status: Short Term

Description: Beginning in 2006, the cost of doing business rose dramatically for greenhouse operators in Georgia, caused by inflation and rising cost of plastics. This was also the beginning of the drought that has caused great harm to the horticultural industry. In addition to the drought, water restrictions and new landscape ordinances had a chilling effect on the industry. In all parts of Georgia, sales of flowers dropped 60 to 90% in 2007. In spring of 2008, sales were similar to 2007, or slightly higher. However, sales for spring of 2008 were still 50% less than spring of 2006. In spring of 2008, the cost of crude oil and gasoline tripled. This caused huge increases in costs for oil-based staples such as plastic pots. Most greenhouse operators made no profit and incurred large losses. Over that same time period, the industry laid-off over 20,000 workers, and the number of licensed greenhouses in Georgia dropped almost 50%. Many greenhouses simply shut their doors, while some underwent bankruptcy. At the time of this report, the economy was in a recession and sales of impulse goods such as flowers were dropping. The overall effect of a drought combined with a spike in fuel prices and a recession has been a devastating triple threat to the horticultural industry.

Trend: The trend for the industry is much more of the same, even if the drought breaks in Georgia. Market venues abandoned by local growers are being filled by large producers outside the drought-stricken region, and that market is likely lost to local growers for a long period, if not forever. Growers that are still in business are cash-poor and are cutting back production for 2009 even more. Layoffs continue, and if fuel prices continue to go higher than \$120 per barrel and the drought continues, the cost of doing business will be higher than the ability of the growers to raise prices, as they cannot increase sales volume. Growers who plan to stay in the business are having to undertake several strategies to survive, including opening up the business for sale during peak spring weeks only, downsizing to where only family members are able to be employed by the business, and having one member of a husband/wife team get a full-time job elsewhere to maintain benefits for the family while the greenhouse business drops health insurance, etc. It is expected this will be the largest shake-out of the greenhouse industry in the history of Georgia. By 2010, the state could lose 70% to 80% of greenhouse owners that were in business in 2005. Other than providing financial planning advice and business strategy planning, there is little county agents and specialists can do to alleviate this problem.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: PowerPoint: How to Deal with Recession in the Greenhouse Industry: Paul A. Thomas, Matthew Chappell and Forrest Stegelin

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Commercial Vegetable Production Costs and Issues*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Commercial vegetable production continues to be one of the state's leading industries. However, the industry will be faced with continued challenges in the coming years. Among these will be dramatic increases in cost of production, transition away from methyl bromide, and continued concern over labor issues, food safety and pest control.

Trend: Costs of production are increasing dramatically largely due to the increase in petroleum. Costs for plastic mulch, fertilizer, pesticides, fuel and transportation are all up dramatically. Growers will need guidance in how to stay competitive in the face of these increased costs. Food safety continues to be a major issue for the industry. Recent outbreaks of salmonella in tomatoes have underscored the need for a good food safety plan, traceability and public response plans when issues arise in the industry. Many growers are still dependent on methyl bromide. Viable alternatives have been developed and growers need help in transitioning to these alternatives as the cost of methyl bromide rises and the supply declines. Labor continues to be a major cost for producers and the availability of reliable labor is tighter than ever before. Growers need to be vocal and united in their concerns to state and national leaders about the impact of this issue on their industry.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Controlling Tropical Spiderwort in Ornamentals*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Tropical spiderwort (*Commelina benghalensis*) is a federal noxious weed that is problematic throughout much of the Southeast. In Georgia, tropical spiderwort has invaded several field and container nursery operations. The Georgia Department of Agriculture has threatened to close nurseries or stop shipment of plant materials infested with tropical spiderwort. Information on controlling tropical spiderwort has centered around row crop agriculture where control levels of 60 to 80 % are deemed adequate. Unfortunately, this degree of control is unacceptable in containerized or field-grown nursery operations, and there is little scientific information on herbicides available to the ornamental industry.

Trend: The nursery industry accounts for more than \$400 million in sales. If nursery stock is shipped to other states containing federal noxious weeds, those states have the ability to stop sales of nursery stock from Georgia. Obviously, this could have a negative impact on sales, Georgia agriculture, and the University of Georgia extension system. Steps are currently underway to identify herbicides that can manage tropical spiderwort. The preemergent herbicides flumioxazin, simazine and oxyfluorfen look promising and are providing nearly complete control of tropical spiderwort (>90%) up to two months after treatment. Experiments with postemergent herbicides indicated that 2,4-D, diquat, glufosinate and high rates of glyphosate (5.0 lb ai/A) can provide good postemergent control of tropical spiderwort. A more multi-state approach is needed to increase awareness and provide control in states where this plant is a problem (Alabama and Florida).

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Drought Induced Problems in Container Nurseries*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Dry conditions in spring of 2007 and 2008 have created unique problems for growers of container-grown nursery crops in Georgia and Florida. By not monitoring soluble salts and pH of substrates and irrigation water, growers who are familiar with growing crops under normal rainy conditions which leach salts set themselves up for production problems later in the growing season.

Trend: Growers begin to fertilize plants heavily in March in anticipation of the spring growing season. Growers have not adjusted their irrigation and fertilization practices, thus soluble salts build up in the container substrate and pH increases due to irrigation water having moderate alkalinity. Soluble salts in the range of 2.0 dS/m are considered high, whereas I have measured EC readings in excess of 5.0 dS/m. Growers need to apply additional irrigation to aid in leaching salts from the substrate. Furthermore, most growers recycle their irrigation water. With the lack of rain, the EC of collection basins have risen above the EC of the fertilizer solutions being put on the crops. Eventually, all this leads to salt-induced root rot and high-pH induced micronutrient problems. Work is being conducted on-site with growers to understand these problems and to improve their monitoring skills to prevent future problems.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Frost and Freeze Control in Fruit Crops*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Frost and freeze damage in early-blooming fruit crops is the greatest threat to these industries.

Trend: Technologies are available to greatly reduce these losses, including: 1) Breeding frost-hardy cultivars (good examples are Brightwell and Austin blueberries developed at UGA Alapaha and the Gulf series peaches developed at UGA Attapulgus); 2) Use of overhead irrigation for freeze protection (about 200 systems now in operation on southern highbush blueberries and strawberries); 3) Site selection; 4) Wind machine and helicopter; 5) Growth regulators to delay bloom (ethephon label for Ga. blueberries); 6) Novel methods such as Spanish tunnels, foam and inline sprinklers (flippers). A combination of methods is needed on most farms as water supply is usually limited.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Increase Research, Agent Training and Outreach in Organic Agriculture*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Organic production has seen dramatic growth over the last several years, particularly since the adoption of the National Organic Program organic certification. Although Georgia's organic acreage is small, it has shown dramatic growth over the last several years, growing over five-fold in the past seven years. This is underscored by the Vidalia onion industry that has grown from no organic acres in 2002 to 400 acres in 2008, which now represents the largest vegetable commodity produced organically in Georgia. There need to be more resources for agent training, research and outreach in this area.

Trend: The University of Georgia has done a good job beginning the process of addressing organic production in the state. Julia Gaskin has been named the organic and sustainable coordinator, which has brought together faculty from various departments to communicate and collaborate. Research efforts, although not coordinated, have been underway in a number of disciplines. Certified organic acres for research have been established at several locations within the University and a certificate program in organic horticulture has been established. There continues to be a lack of research on production practices for large-scale organic production in south Georgia. Agents by and large are under-trained in this area and consequentially are ill-equipped to help growers, particularly as it relates to certification. Understanding soil fertility, particularly as it relates to long-term impact from organic practices, needs to be researched. South Georgia, with its mild winters and relatively high rainfall, makes organic production practices difficult. Variety selection and performance also need to be addressed in an organic system. Research on disease, insect and particularly weed control needs to be addressed. Development or evaluation of new equipment to control weeds is a critical area for growth in organic production in Georgia.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: ***Landscape Industry Must Diversify to Remain Profitable***

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: The drought, rising gas prices and a slumping economy have brought tough times to the landscape industry. In north Georgia, when Level 4 drought restrictions occurred, firms that did landscape installation saw their business fall to zero since they could not water their installations. The exemption by permit that began in March of 2008 that allows irrigation of new installations for 10 weeks has helped, but clients are still reluctant to do new installations, not knowing what the future holds. Furthermore, as the economy continues a downhill spiral, clients are reducing their level of service, or cancelling their contracts altogether. Most irrigation firms are now out of business or offering water harvesting installation services. Gas prices are killing commercial landscape firms that must drive trucks and equipment from job site to job site. They are forced to convey these costs to their clients, and clients are deciding to cancel their contracts. Clients have scaled back services, requesting less intense maintenance, fewer flower beds and more natural areas that don't require maintenance.

Trend: Lay-offs are occurring throughout the landscape industry as demand falls, costs rise and clients cancel contracts. At the same time, the number of new firms is increasing as individuals who get laid off by other professionals start landscape maintenance companies. Many of these individuals lack knowledge of appropriate horticultural practices and business management skills. Firms are diversifying in an effort to survive tough times. Those that offered strictly installation services are now offering maintenance services. A growing number of firms are offering hardscape installation, gutter cleaning, mulch installation, cistern installation for water harvesting, and other services that don't require irrigation. Now, more than ever, clients want low-maintenance, sustainable, drought-tolerant landscapes. Demand for water harvesting systems at both residential and commercial sites is increasing at a phenomenal rate. Owners of new landscape companies are eager for information on cost estimating and job bidding.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations

Add'l Resources: Cost estimating and job bidding software for landscape installation and maintenance. Nine employee training videos for landscape professionals in both English and Spanish.

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Managing Peach Production in a Changing Climate*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Georgia peach producers have been challenged by warmer winters with reduced chill hours in recent years and by instances of severe frost later in the spring than has occurred in recorded history.

Trend: Trends that have impact on this issue: the last two winters have been warm, resulting in lower chill hour accumulation; the last two springs have been characterized by very late frosts that have so damaged the peach crop as to potentially threaten the distribution of peach production, should this become a continuing trend; producers are interested in varieties that have very narrow chill requirements and higher frost tolerance; and peach producers are seeking better means of protecting their crops during a frost event.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Communication with peach growers is on-going

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Olive as a Food and Fuel Crop in Georgia*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Georgia farmers have an interest in new, higher-value crops to replace row crops within the state. It is not known whether olive will be viable for table olive, olive oil or as a feed stock for bio-fuel production in Georgia. There is a need to explore this potential crop.

Trend: Trends that have impact on this issue: Olives were grown in Georgia in the 18th and 19th centuries; Traditional row crop producers are looking for higher value crops; Blueberry growers have much of the infrastructure on hand to produce olives in a super-high density cultural system; Georgia's climate has many similarities to other olive producing areas, but there are also dissimilarities that may be problematic; Apparent global warming may be altering Georgia's climate to a point that may make the crop more feasible than it has been in the past; The search for biofuel feedstocks increases the interest in olive production (giving an outlet for the production refuse of olives); There is a processing structure within the state in the Albany area that could easily serve as a basis for oil and table olive processing; Two grower consortiums in Bacon and Pierce Counties are planting olives in 2008 and others are interested in planting in 2009; One nursery in Pierce County has secured distributorship of the specific olive varieties that are useful for super-high density culture.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations

Add'l Resources: Variety trials and cultural research is underway to support this emerging industry. A study tour for Dr. Taylor is planned for late summer/fall of 2008.

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Outlook 2008: Trends, Issues and Resources

Program Area: **A&NR** Department: **Horticulture**

Emerging Issue: ***Rising Cost of Pecan Fertilization***

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Due to the rising cost of production, profit margins for many growers have declined. Fertilizer N costs comprise over 25% of the total cost of pecan production. Nitrogen costs have risen by more than 200% within the last five years. In order for pecan production to remain profitable in the face of rising fertilizer and fuel costs, more efficient fertility management programs must be developed.

Trend: One aspect of the cost-price squeeze occurring in pecan production can be directly attributed to the rising cost of fertilizer. Although pecan producers have a variety of options available to increase fertilizer efficiency while reducing the cost of fertilizer N, it will require shifting to alternative methods of fertilization, including fertilizer placement, and utilization of organic forms of N. Many producers have planted clover to their orchards in the last few years; however, they need to be made aware of and take advantage of the N credits they can receive from using clover as a cool-season orchard floor cover. The use of poultry litter as a source of fertilizer in commercial pecan production has increased dramatically in the past few years as well. However, little scientific information is available regarding the response of pecan trees to poultry litter as a fertilizer. Timing and placement of fertilizer also have a profound impact upon the efficiency with which trees use N and the cost of N fertilizer. Granular and/or liquid application of N fertilizer over the active root zone over drip emitters would substantially reduce the cost of fertilizer application over broadcasting provided the tree's N needs are still met.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Demonstration trials regarding this problem are currently ongoing

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: ***The Inability for Small/Medium Sized Growers to Ship Plant Material Due to High Fuel Costs***

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Over the past 12 to 18 months, small and medium sized growers throughout the state of Georgia have suffered through many devastating environmental and economic hardships. Two of these issues -- the ongoing drought and spiking fuel prices -- have hit this segment of growers particularly hard. Growers have seen a sharp downturn in the southeastern market and a virtual collapse of the Atlanta market while at the same time seeing increased prices on fuel and other petroleum products used in production (fertilizers, containers/pots, poly greenhouse covering, etc.).

Trend: In past droughts, Georgia growers had the ability (financially speaking) to ship plant material out of the drought-affected region because the fuel cost to ship plant material did not outstrip profit margins. However, in the current drought many growers are financially incapable of shipping plant material out of the region at a price that is competitive with green industry prices -- in markets previously relied upon by Georgia growers in similar droughts. This is especially true when considering that most deliveries are made on trucks that are only partially filled. One solution to this problem that is being investigated is the feasibility of local or regional shipping cooperatives that would assist growers in filling trucks destined for markets outside of the state (e.g. Boston, Houston, Raleigh, Washington D.C.). By utilizing such a cooperative among growers, shipping costs could be significantly reduced on a per-unit basis, hence increasing per-unit profit margins.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Statewide educational program for grower groups and potentially a computer-based program that links growers in a shipping network.

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Outlook 2008: Trends, Issues and Resources

Program Area: **A&NR** Department: **Horticulture**

Emerging Issue: ***Decreasing Water Availability and Increasing Water Cost for Nursery Crop Producers***

State Issue: Conservation & Management of Natural Resources

Status: Long Term

Description: Water conservation is an important issue in the state of Georgia as population increases and water, a finite resource, is increasingly needed to support human welfare. Due to this fact, many nursery owners/operators understand that information (and research) is needed to address the water problems facing Georgia and specifically how much (or little) water is needed to produce plant material.

Trend: Most nursery crop producers (roughly 90%) in the state utilize overhead irrigation to irrigate plant material, and admittedly, water too frequently and at too high of a volume. This practice is employed to maintain rapid plant growth (minimize plant stress) with the mindset that the longer a plant remains on the nursery property, the less return on investment will be realized. However, it is becoming increasingly costly to irrigate at historic levels due to increased energy cost needed to operate pumps, increasing water cost (if using municipal sources) and increased cost in water acquisition (installing wells and/or retention basins). Therefore, work is being conducted at UGA and on-site with growers to determine minimum irrigation needed to produce various nursery crops using new technologies and irrigation methods. From this, a water savings calculator can be developed that will allow growers to determine the economic benefits and break-even point of purchasing irrigation technologies that reduce water use in production operations.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Organic Alternatives in the Home Garden and Landscape*

State Issue: Conservation & Management of Natural Resources

Status: Long Term

Description: As food safety, environmental concerns and water quality continue to be strong issues for the public, there will continue to be a need for organic alternatives and education on best management practices for homeowners in caring for their gardens and landscapes. Many traditional chemical controls are losing their labeling for use by homeowners, so safe alternatives are needed. Many common information sources such as nurseries, department stores or landscapers are not up-to-speed on the latest organic alternatives, and may pass on faulty information to consumers.

Trend: There is a strong need for University information and education. Fewer traditional chemical controls will be available in the future to combat pests in the landscape and garden. The trend will be to follow organic practices and use organic alternative controls to battle problems. The public will seek unbiased information from the university and other sources via the web, county extension offices, trainings, media and consultations. The public will be looking for simple, easy-to-understand information on how to sustain their gardens with the least environmental impact. Web delivery of information will most likely be the greatest method of providing consumers with the knowledge they need.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Urban Tree Assessment and Mapping*

State Issue: Conservation & Management of Natural Resources

Status: Long Term

Description: The Georgia Urban Forest Council has identified six issues related to urban forests in Georgia. These issues include: 1) the need for better tree canopy and green space management and protection; 2) lack of awareness and understanding of the value of trees; 3) the need for research-based BMPs for urban forests; 4) improved local ordinances and policies to protect trees; 5) increase awareness of and access to arborist professionals; and 6) better tree design standards for design professionals.

Trend: Many local governments and tree councils are seeking advice and assistance to conduct tree inventories and mapping projects, the first step in a sound urban tree management program. Some larger cities have been able to hire full-time arborists and consultants. However, many cities and towns in Georgia will not be able to afford the services of a full-time arborist or a private consulting firm to conduct tree inventories. County Extension agents can take a leadership role by training local volunteers such as Master Gardeners and serving on advisory boards and commissions charged with tree preservation projects. Global Positioning Systems and Geographic Information Systems technology is rapidly changing, becoming cheaper more accessible; however, many gaps remain in available information and training materials.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Proper Sanitation During Postharvest Handling of Fresh Fruits and Vegetables*

State Issue: Food Safety

Status: Long Term

Description: It is estimated that one in four Americans will get food poisoning this year, though due to the general non-life threatening nature of most food borne illnesses, a very high percentage of those cases will simply go unreported. However, once sufficient data is collected that ultimately implicates a particular crop in a severe outbreak, the economic damage to that industry can be dramatic. Therefore, it is imperative that producers are aware of potential sources of and the best practices for controlling contamination in order to minimize the risk for their operation and to their industry.

Trend: Proper sanitation is critical throughout the entire production process. However, the handling of the product postharvest is an especially important period where numerous potential sources of contaminants are present. For example, contamination can arise from hand harvesters who may have poor sanitary practices after using restrooms and subsequently handle raw products in the field or grading lines. Other potential sources include the packing line, especially rollers and brushes, or bulk containers such as bins or carts that, when not cleaned between uses or seasons, will invariably accumulate fungal pathogens and other contaminants in the juices derived from damaged products. However, often the most important source of contamination postharvest is the dump tank. Dump tanks will naturally concentrate any pathogens present in the field to potentially dangerous levels, and then expose every single unit to the pathogen prior to it proceeding through the sorting and grading line. As a result, though the original intent was to clean and decontaminate the product prior to packing, the end result is that all products coming from the field, contaminated or not, will be exposed to the pathogen after harvest in the one step that is supposed to clean the product. Fortunately, the postharvest handling period is also the best opportunity for decontaminating the product from pathogens acquired from the field. Very simple and inexpensive chlorine monitoring equipment is available, and checking the tanks periodically during the day for the amount of "active" chlorine should be the minimal standard. Unfortunately, numerous operations that include a wash step in chlorinated water do not have adequate monitoring equipment or maintenance of the tanks to ensure that minimal safe levels of active chlorine are maintained. County agents and growers alike should be aware of the importance and limits of chlorine as a decontamination tool, the differences between "active," "inactive," and "free" chlorine, as well as the dramatic effects of pH, temperature and dirty water on the amount of "active" chlorine present in the water. Other sanitizers (e.g. quaternary ammonium, ozone, chlorine dioxide) should also be considered in certain circumstances. Simple practices and relatively inexpensive equipment is all that is required to significantly reduce the grower or packers risk of placing contaminated products into the food chain.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Horticulture

Emerging Issue: *Master Gardener Program Advanced Training and Administration*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: Georgia Master Gardener Program volunteers who commit to provide community service in exchange for training are not providing that service to the degree that the program intends. The efforts will focus on the effectiveness of support and incentives county Extension agents could provide to volunteers; what motivates volunteers to continue in the program after their initial 50 hour commitment; and what factors influence active participation, sustainability and continuity in the Georgia Master Gardener Program.

Trend: Incorporate into the MG Administrative Manual all the suggested changes by the legal office, accounting office and Extension administration regarding clear guidelines for management of MG training and MG local associations, including funds, finances and volunteer activities. Continue to strengthen state-wide the Advanced MG and the school MG Programs.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Fusarium Wilt of Watermelon*

State Issue: Agribusiness Development/Value Added

Status: Long Term

Description: Most of the Georgia watermelon market has shifted to seedless watermelons. To date, at least 75% of the watermelons grown in Georgia are seedless. As this shift toward seedless watermelon production has progressed, so has the incidence of Fusarium wilt of watermelon. Most modern, seeded watermelon cultivars are resistant to most races of Fusarium wilt. However, because of how seedless watermelon seeds are produced, and how Fusarium wilt resistance genes are inherited, no commercial cultivars of seedless watermelon have been made available that have significant levels of resistance to Fusarium wilt. Now, with a public that demands seedless watermelons more than ever, growers are faced with a real problem.

Trend: There are four trends that will direct how seedless watermelons in Georgia are produced in lieu of Fusarium wilt. 1) Seed companies will continue to attempt to develop and sell seedless varieties with some level of advertised resistance. This resistance can be either multi-gene resistance or resistance conferred with one gene (true resistance). 2) Transplant growers, with the help of seed companies and university horticulturists, will develop an effective and inexpensive way to graft seedless watermelon scions to Fusarium wilt resistant rootstock. Right now that technology is very expensive and time consuming. 3) Many university researchers in cooperation with the Interregional Project 4 (IR-4) are looking into fungicide transplant drenches and seed treatments that will help reduce losses to Fusarium wilt. Many products have shown great promise but are not currently labeled and have yet to be extensively field tested. 4) A combination of the three aforementioned tactics will be developed to maximize Fusarium wilt suppression while reducing grower reliance on any one tactic. Reliance on one or two tactics may be unsustainable.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Boscalid Resistance in Didymella bryoniae, Causal Agent of Gummy Stem Blight in Watermelon*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Pristine has been one of the primary fungicides used to control the fungus *Didymella bryoniae*, the casual agent of gummy stem blight of watermelon. Currently, fungicide resistance in *Didymella bryoniae* from Georgia to Pristine has become an emerging problem.

Trend: Over the past two growing seasons, *Didymella bryoniae* isolates from Georgia have been tested for resistance to boscalid, one of the active ingredients in Pristine, and the majority of the isolates tested have been resistant to this chemistry. It seems the resistance to boscalid is widespread in southwest Georgia. Future research will monitor boscalid resistance in *Didymella bryoniae* and test new chemistries for the control of gummy stem blight.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: ***Disease Management Associated with Increased Acreage and Value of Corn and Soybean Crops***

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Until recently, corn and soybeans were considered to be “minor” crops in Georgia and were grown on fairly limited acreage when compared to crops like cotton and peanuts. However, with the dramatic increase in value of corn and soybeans in the past year, driven in part by the excitement over biofuels, many growers are expanding their plantings of these crops. Both soybeans and corn are affected by a number of different diseases and plant parasitic nematodes; however, growers have traditionally done little to manage these diseases. Lack of management has typically been the result of the growers’ belief that given the value of their harvest, little finances could be devoted to the cost of disease management. However, with increased acreage and value of corn and soybeans, more growers are seeking recommendations for management of diseases and nematodes affecting corn and soybeans.

Trend: Corn in Georgia is affected by two rust diseases, southern and northern corn leaf blights, other minor diseases, sting, stubby-root, stunt, Columbia lance and root-knot nematodes. Soybeans are affected by Asian soybean rust, frogeye leaf spot, downy mildew, Cercospora blight, reniform, southern root-knot, Columbia lance, sting and cyst nematodes. Corn and soybean growers have an increased arsenal of fungicides and nematicides with which to battle these problems; however urgent efforts are needed to provide the growers with essential information regarding product efficacy, economic returns, timing of application, and many other factors. Growers have come to rely on Cooperative Extension for non-biased, research-based information about tools needed to grow crops in the face of diseases and nematodes.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Disease Management Options for Organic and “Green” Production Greenhouse Operations*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Organic production for herbs, micro-greens and vegetable transplants is an increasing trend across the country. Currently, there are several greenhouse operations in Georgia that are growing organically produced crops. Another trend in conjunction with “organic” production is “green” production. Green production is not as stringent as certified organic production, but includes all aspects of production and utilizes “green” production alternatives such as biodegradable containers, organic fertilizers and soil amendments, composting and green energy systems for heating and cooling. Disease management options that comply with organic standards are limited and often have not been fully evaluated. Furthermore, newer biorational (such as plant oil extracts) and biological control options are being marketed to these growers. Efficacy trails need to be conducted to demonstrate effectiveness and profitability in using these products.

Trend: Plant disease management options are needed for organic and “green” greenhouse production. Herbs, micro-greens and vegetable transplants are the most probable crops utilizing organic disease management options; however, there also is a trend toward organic bedding plant production as well. Evaluation of biorational (plant oil extracts, chemicals derived from bacterial or fungal microorganisms) and biological control products is needed. Sanitation and best management practices guidelines for organic and “green” production is also needed. A management guide will be developed over the short-term to address organic greenhouse production.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Educating New County Agricultural Agents about Plant Diseases*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: With a large number of our county agricultural agents reaching retirement in the next five years, we, as specialists, will face the challenge of educating a large number of new agents whose backgrounds differ considerably. This problem will likely continue for several years as we re-establish our county agent task force.

Trend: To help ease this transition, we, as specialists, will need to be proactive in training and educating new agents. This will involve a large commitment on our part. The creation and organization of a large number of agent trainings throughout the state multiple times a year will be a starting point for this process (such as Winter School and the Plant Diagnostic Clinics in each district). From past experiences, I have learned that hands-on trainings as well as fact sheets and other useful publications serve as great resources to teach agents about plant diseases. I also believe that new agents who have educational backgrounds in academic fields other than plant science need more individual assistance and I will work with each of them to address specific issues or questions that may arise.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Fungicide Resistance and Loss of Active Ingredients for Control of Turfgrass Diseases*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Fungicides are essential tools for fungal disease management. Resistance to DMI and benzimidazole fungicides has recently developed for *Sclerotinia homoeocarpa* (dollar spot). Furthermore, fungicide resistance is likely for strobilurin and buscalid fungicides in turfgrass pathogens. This will impact diseases such as dollar spot, gray leaf spot and anthracnose. Multiple fungicide resistance is not a remote possibility; therefore, new fungicide resistance management strategies will be needed. Environmental concerns are on the rise; therefore, there will be a need to develop new management strategies for disease control that include new fungicide chemistries and new IPM programs that are environmentally sound and less toxic to humans.

Trend: New fungicide resistance management strategies will be needed in the near future. Several fungicides and/or active ingredients have come or will come off patent. There are or will be “generic” fungicides labeled for several diseases in turfgrass in the market. Knowledge of the efficacy of these products will be needed. Additionally, loss and/or restriction of fungicide use due to environmental concerns most probably will increase. Therefore, research-based knowledge of fungicide chemistries, mode of actions, and timing of fungicide applications and economic value of the treatment will be needed. EPA has restricted the commercialization of Namacur (fenamiphos) to be effective in 2008, so Namacur replacements will be needed.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Publication of results on specialty applied research publications (Plant Diseases Management Reports) as well as scientific and industry journals.

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Fungicide Resistance Development in Pathogens of Fruit Commodities*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Resistance to DMI fungicides has recently developed for *Monilinia fructicola* (brown rot of peach). DMI resistance will likely develop or has developed for powdery mildew of grape. Resistance is also likely to develop soon for the strobilurin fungicides. This strobilurin resistance will impact diseases such as brown rot of peach, anthracnose of strawberry and downy mildew of grape. Resistance issues will make introduction of new fungicides necessary, but these may not be available. Old, classic, broad-spectrum fungicides will likely take on new importance; this will be a challenge, as these are not the most environmentally or human-friendly fungicides.

Trend: Due to resistance development and the lack of effective alternatives, production of fruits may be challenged by diseases that have been largely under control for the last 30 years. Resistance of *Monilinia fructicola*, the brown rot fungus, to DMI fungicides is being observed throughout the middle Georgia region. Adoption of resistance-management techniques will be critical to continued peach, wine grape and other fruit production. As the Food Quality Protection Act (FQPA) has reduced the number of effective fungicides that are available for fruit production, the need to evaluate new fungicides will increase. The cost of production may go up, and disease management will likely become more difficult. It is even possible that the lack of disease control in wet years will result in downward trends in commodities such as peach and wine grape.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Increase of Turfgrass Diseases and Potential Relationship to Environmental Stresses*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Recurrence and increase of existing turf diseases and the appearance of new diseases are likely in turfgrasses across the state. For example, take-all disease, caused by *Gaumannomyces graminis graminis* (GGG), has increased in the state of Georgia. St. Augustine grass was traditionally the species most susceptible, and the disease seemed to be confined to southern and coastal Georgia. Appearance of GGG in several turfgrass species and in northern areas of the state is expected to increase. Variable weather patterns are probable in the near future; therefore, pathogen occurrence and dynamics are likely to change. For example, *Colletotrichum* (turf anthracnose), *Curvularia* and *Bipolaris* spp (melting out) and nematodes can potentially cause serious damage to turfgrass production and management. There is a need for accurate and rapid pathogen diagnosis, as well as for developing disease management strategies under these scenarios.

Trend: Diseases not originally thought to be of major concern for turfgrass in Georgia have been increasing in recent years. This may be due to environmental stresses, particularly drought and watering restrictions. More efficient use of water or the implementation of stringent water use restrictions is likely to happen; therefore, the occurrence and dynamics of turfgrass diseases will likely change. There is a need to better document, anticipate and more precisely forecast diseases to properly implement effective control measures. The use of new turfgrass species (i.e. Seashore paspalum) or new varieties or new uses for established commodities ("country club-type" neighborhoods, etc.) is likely to increase. Therefore, research and technology transfer is needed to develop disease management strategies under these scenarios. Market forces will determine plant production system variations and the need to build efficiencies into the crop systems. There will be a need to determine better means of controlling disease and increase production with decreasing inputs.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Increased Xylella Diseases of Blueberry, Peach and Wine Grape Fruit Commodities*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Relative to total sales, blueberries are the number one fruit commodity in the state of Georgia, surpassing even peaches. Recently, a new disease has been identified in the Georgia blueberry production region that is rapidly destroying production. This disease has been named bacterial leaf scorch, and it is caused by the bacterium *Xylella fastidiosa*. In addition, other previously known *Xylella*-incited diseases (Pierce's disease of wine grape and phony peach) are increasing dramatically. The increase in *Xylella* diseases may at least in part be associated with climate change, as warmer winter temperatures increase bacterial survival in plants, as well as allow for better survival of insect vectors (sharpshooters).

Trend: Recently introduced blueberry varieties may be susceptible to bacterial leaf scorch. As a result, massive replants with new varieties may be necessary, and new varieties will need to be screened against the *Xylella* pathogen. Replant disorders may be observed, and with the reduction in the use of methyl bromide, replanting may be problematic. Use of insecticides to manage vectors may be increased in all fruit commodities. Wine grape production with the susceptible vinifera grape may become untenable unless insecticides and other management techniques are successfully adopted. Replanting with French-American hybrids, natives or other hybrids from Florida or other breeding programs may become necessary, but the wine market may not accept the wines produced from these grapes. Likewise, peach production could become much more problematic, with annual tree losses exceeding the profitability of the crop.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: ***Marketing of Strobilurin Fungicides for the Benefit of Physiological and Growth Responses in the Host Crop***

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Until recently, fungicides have been by and large marketed to growers to be used to protect their crop from losses to disease and offer some limited curative activity to the crop even after disease has begun to develop. This marketing approach has changed recently for some fungicides in the strobilurin class (e.g. pyraclostrobin, azoxystrobin, and trifloxystrobin) with the discovery that these fungicides can have effects on crop physiology as well. Today, some strobilurin fungicides are marketed not only for their effectiveness for disease protection, but also for their benefits to the plants even in the absence of disease. Growers are seeking education and recommendations with regard to this new use of fungicides.

Trend: Growers want to maximize their yields and their profits. To achieve these objectives, many growers are watching for any new products or management strategies to give them an “edge” in their crop production. The use of strobilurins to promote general plant health even in the absence of disease has cautious acceptance among many corn and soybean growers in the United States. Many producers in Georgia are seeking guidance from the University of Georgia. A putative result to using a strobilurin fungicide in the absence of disease is a physiological benefit that produces healthier plants and more yield. However, there are also possible consequences, e.g. increased introduction of fungicides in the environment, increased costs without additional yield and over-use of sensitive fungicides that can result in the increased risk of fungicide resistance. Currently, there is no solid evidence from fungicide trials conducted at the University of Georgia that these strobilurin fungicides increase yields in the absence of disease. More research and Extension efforts are needed to provide critical information to the growers.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Plant Pathology

Emerging Issue: *Phytophthora Disease Management in Nurseries*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Phytophthora ramorum, cause of sudden oak death and ramorum blight, has killed thousands of oak and tanoak trees in California and Oregon. Phytophthora ramorum is listed as a regulatory pathogen by the USDA because of its potential impact on eastern U.S. forests if the pathogen becomes established. The pathogen is spread interstate on infected ornamental plants. A Federal Order is in place requiring testing of all host plants for the presence of P. ramorum before a nursery can ship plants interstate. This has cost the USDA and state regulatory agencies tens of thousands of dollars each year. It also has severely affected ornamental nursery production in the western United States and has resulted in millions of dollars of loss due to plant destruction and implementation of compliance agreement protocols for Phytophthora management. The pathogen continues to be introduced into Georgia and other retail ornamental nurseries on infected plants originating from the western U.S. (California, Oregon and Washington). Commercial ornamental production nurseries continue to receive liners and other plants from western states, which increases their potential for introducing P. ramorum into their production facilities. Once established, the nurseries will be quarantined and have to comply with best management practices for Phytophthora management to limit the spread and impact of the P. ramorum or potentially be put out of business.

Trend: The main trend is the establishment and implementation of best management practices to reduce the risk of Phytophthora diseases within ornamental nurseries (both retail and production). BMPs include: 1) irrigation water assessment and treatment, 2) establishing quarantine areas, 3) zoning of nursery production, shipping and propagation areas, 4) fungicide treatment to suppress Phytophthora, and 5) training of personnel and scouts to identify and react to Phytophthora diseases. A second trend may be establishment of a P. ramorum certification program similar to the programs in place within the western U.S. A draft program was developed by the GDA, GFC, UGA and GGIA representatives. Other trends will be in evaluating irrigation water treatment options, host plant resistance, and disinfectant and fungicide efficacy.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Poultry Science

Emerging Issue: *Air Quality from Poultry Feeding Operations*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Since animal production is thought to account for about 75% of ammonia (NH₃) emissions, there is a growing interest in regulating NH₃ emissions from animal feeding operations. Individuals living in proximity to existing or proposed poultry facilities have used NH₃ emissions to oppose construction or expansion of new facilities. This has been done in spite of little scientific information to support NH₃ being a local environmental or health issue. Additionally, there is a need for science-based setbacks to address rural zoning issues. Without scientifically-based determinations of NH₃ associated with poultry emissions, the poultry industry may suffer from limited future growth and increased production costs.

Trend: In the U.S., animal production is thought by the USEPA to account for about 75% of total NH₃ emissions, with poultry contributing approximately 27.5%. Poultry production operations are under increasing criticism with regard to air emissions and their purported impact on the environment and public health. Local governments often base ordinances and setback requirements for animal feeding operations on a lack of scientific data. The dispersion and movement of NH₃ released into the atmosphere from poultry housing is not well documented. Currently, there is no prediction of downwind concentrations for use in setback establishment specific for poultry houses. Measuring the actual dissipation of ammonia from poultry housing will provide the scientific data needed for the establishment of appropriate ammonia based setbacks. Poultry extension specialists and engineers can provide science-based information that can be utilized by poultry producers and country regulators.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Poultry Science

Emerging Issue: *Disposal of Poultry Mortality*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Increased fuel costs have resulted in poultry producers seeking ways to reduce their on-farm costs and improve their profitability. Poultry growers utilize LP gas for heating their houses as well as for incinerating daily mortality. One possibility for reducing their operational costs is to find and implement alternative methods to dispose of daily farm mortality.

Trend: The viability and growth of the poultry industry depends on the producer's ability to be profitable. The amount of gas used by producers can be reduced by utilizing alternative methods of mortality disposal. Currently, the best alternative method is composting, which is a natural biological process that produces a product that is a nutrient-rich soil amendment. Composting as a means of daily mortality disposal can have immediate impact on the profitability of poultry producers. Poultry farmers will need to have educational and demonstration programs so that they will be able to properly manage and operate compost bins on their farms.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Poultry Science

Emerging Issue: *Efficient Poultry House Environmental Control*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Fuel prices paid by poultry producers have more than doubled over the last five years. These increased fuel prices have resulted in increased costs for poultry producers and lower profit margins.

Trend: Poultry housing has improved greatly over the last ten years. New house construction and technology provide the means for economical operation while providing optimum environments for the chickens. Increasing fuel costs have made efficient operation of these houses essential for maximizing the producer's profits. Poultry producers are currently in need of and will continue to need improvements and new technology related to energy conservation. Applied research and extension educational programs will be directed at energy conservation programs for the direct benefit of poultry farmers.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Poultry Science

Emerging Issue: *Energy Prices Put Pressure on Profitability of Poultry Companies*

State Issue: Agricultural Profitability & Sustainability

Status: Short Term

Description: Fuel prices have increased substantially in recent years. In addition, ethanol production has increased the cost of feed for poultry producers. These factors have resulted in losses for most poultry companies in recent quarters. It is imperative that poultry producers find ways to improve energy efficiencies and reduce production costs.

Trend: Most analysts agree that the worldwide demand for energy will continue. As a result, poultry producers will continue to face difficult economic situations. Extension specialists in poultry science are conducting research to recover poultry fat from dissolved air flotation (DAF) skimmings from the wastewater of poultry plants. The DAF skimmings are centrifuged to recover the oil fraction. The recovered oil can be used to produce biodiesel on-site. Each poultry processing plant could potentially produce 12,000 gallons of biodiesel per day. This biodiesel could then be used to offset increasing fuel costs for the processor.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Poultry Science

Emerging Issue: *Poultry Litter Phosphorous*

State Issue: Agricultural Profitability & Sustainability

Status: Long Term

Description: Environmental issues are a critically important area for the poultry industry. The future growth and viability of this industry depends on its ability to address important environmental issues related to poultry waste utilization, water quality and air quality. These issues have become increasingly important to the industry and have increased the need for assistance in these areas. Management of poultry litter nitrogen and phosphorous concentrations as they relate to water quality will continue to receive increased attention from regulators. As the cost of energy continues to climb with corresponding increases in fertilizer prices, the use of organic fertilizers such as poultry litter will also increase. Assuring the proper use of the material to meet crop needs while protecting the environment will continue to be a challenge for the poultry industry.

Trend: Training the poultry industry on effective environmental management practices and educating the general public concerning the issues of nutrient management, nutrient balance and sustainable water quality continue to be a high priority. Poultry growers and industry representatives continue to need training regarding best management in these areas. With assistance from county agents and extension faculty, the industry-implemented nutrient management planning program will continue to have a positive impact on the environment by helping farmers develop and implement NMPs designed to protect Georgia water quality and to enhance environmental stewardship efforts.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: A&NR **Department:** Poultry Science

Emerging Issue: *Agro/Bio-Security for Poultry Farms*

State Issue: Agrosecurity

Status: Long Term

Description: The geographical concentration of poultry farms around processors and the trend toward larger farms makes agro-security and bio-security important for the safe and viable operation of these production facilities. The development and spread of Avian influenza in many countries of Asia and Europe and the potential spread of this disease and other damaging poultry diseases has increased the need for poultry producers to use best management practices available for securing their farms. The introduction of a biological contaminant into poultry flocks in Georgia either by accident or intentionally could be economically devastating for the poultry industry.

Trend: Poultry companies are increasing their bio-security programs and encouraging farmers to implement management practices for the maximum protection of their flocks. Poultry farmers are in need of educational programs and assistance in implementing best management programs for securing their farms. Poultry specialists can provide training programs and educational materials for the benefit of poultry producers and the protection of their flocks.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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**Section III:
Family & Consumer
Sciences**

Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Cash-Strapped Consumers: Making Ends Meet*

State Issue: Economic Well-being for Individuals & Families

Status: Long Term

Description: Times are hard for many Georgia families. Food and gasoline prices are at historic highs due to a variety of factors, including increasing world demand from developing countries around the globe. The drought has impacted farming, horticulture, industries that depend heavily upon water, tourism and recreation. Problems in the housing sector continue to impact the economy as foreclosure rates make headlines, home sales slow to a crawl and new housing starts to decline. Real estate offices, construction firms, mortgage brokers, home improvement stores, furniture stores and related businesses have all been hit, leading to loss of income for thousands of workers.

Trend: Prices for basic necessities have increased more rapidly than wages. The price to fill up the car with gasoline has more than doubled in the last five years. The weak dollar means U.S. consumers pay a premium for imported goods and that travel outside of the U.S. may be prohibitively expensive. Rising energy costs have impacted not only home fuel bills, but also the price of food, clothing and other goods. Shortages around the world due to disaster and drought are also driving food prices up. The cost of health care, college tuition and gasoline continue to go up more rapidly than the overall rate of inflation, placing more consumers at risk for catastrophic medical expenses and the prospect of employment for less than a living wage. Even without these economic challenges, the majority of consumers lack the information they need to make informed decisions. The consequences impact economic well-being now and in the future. Dropping out of school, paying bills late, defaulting on financial obligations and other bad choices have far-reaching consequences and long-term impacts on economic well-being. Making poor choices about what to buy and from whom, whether to save or spend and when to use credit make it more difficult to reach long-term goals.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

Add'l Resources: "How You Spend Makes a Difference" Exhibit

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Identity Theft*

State Issue: Economic Well-being for Individuals & Families

Status: Long Term

Description: More than 8,000 Georgians reported to the Federal Trade Commission that they had been victims of identity theft in 2007. More than one fifth (22%) were victims of credit card fraud, followed by phone or utilities fraud (17%), government documents or benefits fraud (16%) and bank fraud (15%). The largest report category, however, was "other." According to a Better Business Bureau study, nearly all (90%) identity theft takes place through traditional channels rather than via the Internet. When the victim can identify the source of data compromise, lost or stolen wallets, checkbooks or credit cards are the primary source of personal information theft. When the victim can identify a perpetrator, almost half of all identity theft is perpetrated by friends, neighbors, in-home employees, family members or relatives. The Better Business Bureau study found that the 65 and over age group has the smallest rate of identity theft, while the 35 to 44 age group has the highest average fraud amount.

Trend: Consumers are paying attention. The incidence of identity theft is declining, from more than 10 million victims in 2003 to fewer than 9 million victims in 2006, according to a February 2007 Javelin Strategy & Research Survey. The average fraud amount per victim has also dropped from \$6,278 in 2006 to \$5,720 in 2007. The vast majority of identity theft victims (68%, according to the Better Business Bureau) incur no out-of-pocket expenses. However, victims of identity theft spend a lot of time trying to resolve their case—40 hours in 2006. The mean resolution time was reduced in 2007 to 25 hours per victim, with the median resolution time holding steady each year at 5 hours per victim (Javelin Strategy & Research Survey, 2007).

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation

Add'l Resources: Federal Trade Commission Identity Theft Education kit, available from Michael Rupured

Web Page: www.fcs.uga.edu/ext/econ/id_theft.php

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Inadequate Savers and Investors*

State Issue: Economic Well-being for Individuals & Families

Status: Long Term

Description: The U.S. personal savings rate has declined over the past quarter century and now sits at a historically low level. According to the Bureau of Economic Analysis, the personal savings rate (savings as a percent of personal disposable income) was less than one percent in the second and third quarter of 2007. If Georgia's individuals and families are not saving, they are obviously not investing to achieve their future goals. Without saving and investing, the economic well-being of Georgia's individuals and families will not improve.

Trend: In order to achieve the goals of home ownership, paying for college, retirement or other future goals, Georgia's individuals and families need to reverse the trend from current consumption to saving and investing. However, anecdotal evidence suggests that there are many individuals who do not clearly understand the difference between saving and investing or how to begin a successful investment program. The Cooperative Extension must educate Georgians on steps that should be taken before investing and the different investment options to provide them with the tools necessary to achieve long-term financial stability. By providing clear, simple and motivational educational materials, we can raise awareness and foster a culture of short-term and long-term investing among Georgia families.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Investing Exhibit

Primary Contacts: Joan Koonce, Housing and Consumer Economics, jkoonce@fcs.uga.edu
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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Insurance Poor and Inadequately Insured Consumers*

State Issue: Economic Well-being for Individuals & Families

Status: Long Term

Description: Insurance products are often seen as intimidating and complex, yet nearly all Georgians must navigate these markets to insure themselves and their property. Many types of insurance, such as health insurance, are necessary for families. However, deciding what type and how much insurance a family needs can be a daunting task—one that must be undertaken. On the other hand, there are many types of insurance that are not needed by individuals and families even though it is sold to individuals regularly.

Trend: Public and private health insurance and the associated costs of health care are straining the budgets of Georgia individuals and families and contributing to their concerns about long-term economic well-being. Per capita health care costs are continuing to increase, and retired persons are trying desperately to find the health care coverage they need at an affordable price. Because of the complexity of the insurance market for all types of insurance, many Georgians may be spending money on insurance products they don't need and not purchasing the insurance products that are necessary for them and their family's economic well-being. Paying premiums for insurance that is not necessary is a waste of money that can be saved or used to cover other necessary expenses. The Cooperative Extension Service has the opportunity to provide Georgia's individuals and families with insurance education that can help them navigate the complex insurance markets. By providing clear and concise insurance information to the people of Georgia, we can help them protect their own, and their family's, assets and physical health without spending unnecessary money.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Insurance Exhibit

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Low Credit Scores*

State Issue: Economic Well-being for Individuals & Families

Status: Long Term

Description: Credit scoring is used to help potential lenders quickly measure an applicant's credit worthiness. Lenders review credit scores along with the additional applicant information to decide whether they want to extend credit. Typically, credit scores range from 330 to 830. A higher credit score suggests a lower credit risk. Individuals with higher credit scores (720 and above) are generally offered more favorable loan rates and terms. According to Experian's National Score Index, Georgia consumers have an average credit score of 676 (Experian.com). Consequently, most Georgians generally do not qualify for the best credit terms available. The credit score is based on information found in the individual's credit report and calculated using a statistical formula. The scoring system awards or deducts points for each factor that helps predict payment behavior. The sum of these points gives a consumer a credit score. Consumers with higher credit scores consistently have fewer late payments and past-due accounts, fewer accounts in collection, repossession, foreclosure and lower overall percentage of debt to income.

Trend: A Government Accountability Office report (GAO-05-223) highlights the need for more education to improve consumers understanding of credit reports and credit scores. The GAO found that many consumers' did not know important facts about credit reports, such as how long items remain on their credit report or the impact their credit history could have on insurance rates or potential employment. Many consumers did not know that there is no cost to dispute inaccurate information contained on a credit report. A 2004 Consumer Federation of America study found that even when they think their knowledge of credit is good, most consumers do not understand credit scores. In a study by Lyons, Rachlis, and Scherpf (2007), many consumers did not know that race, checking account balances, and income are not included on credit reports. They also found that while most consumers knew the definition of a credit score, less than a third (28.2%) could name a number within the possible credit score range. The same study found that many consumers were not aware that frequently applying for credit or using most of their available credit lowered credit scores. Lyons et al. found that less educated, lower income, older, or Hispanic consumers tended to be less knowledgeable. Georgia's average credit score (676) is likely related to the high incidence of bankruptcy in the state. Georgia currently ranks second in the nation, behind only Tennessee, with one of every 96.35 households filing in 2006. Participants in a two-hour financial literacy course provided by FACS agents and required by the Department of Justice for bankruptcy filers often say that had they known the information provided in the class, they could have avoided bankruptcy.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

Add'l Resources: How to Get Out of Debt Exhibit; PowerPay Computer Software

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Consumer Concern – Safety of Produce and Imported Foods*

State Issue: Food Safety

Status: Long Term

Description: According to the Dietary Guidelines for Americans 2005, those who consume more fruits and vegetables as part of a healthful diet are likely to have reduced risk of chronic diseases. As produce consumption has increased in the U.S., however, there has been a significant increase in foodborne disease outbreaks associated with fresh produce. A summary of data from the Centers for Disease Control and Prevention (CDC) indicate a steady increase in the number of produce-associated outbreaks since 1987, with a variety of fruits and vegetables involved. As a result, there is growing consumer concern over the safety of foods, especially fresh produce, in the marketplace.

Trend: Recent widespread outbreaks of foodborne illness from fresh produce and imported foods have increased consumer concern over the safety of the food supply. A 2007 study by the National Marketing Institute (NMI) looked at trends driving consumer behavior. The overriding theme identified was “consumers in control.” Nowhere is this trend more evident than in the explosion of the organic food industry and the increased interest in locally-grown foods. Organic sales are estimated to have increased by 20% annually since 1990, resulting in \$13.5 billion in sales in 2005. Although consumers see these products as being healthier for them, small farms that typically supply these products may lack personnel and training to develop HACCP plans and to be GAP-certified. Consumers may pay higher prices for these foods and still be at risk. Cooperative Extension’s program goal is to help consumers, producers and retailers acquire knowledge about safe produce handling that could help them understand causes of foodborne illness, prevent contamination and cross-contamination, identify appropriate ways to clean, handle and store produce, compare organic versus conventionally grown products, identify safe sources of produce, make informed decisions about produce safety and the safety of imported products and identify reputable sources of information about problems that may arise in the food supply.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Slide show, fact sheet, web module will be available in 2009.

Primary Contacts: Judy A. Harrison, Foods and Nutrition, judyh@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Food Safety for Foodservice*

State Issue: Food Safety

Status: Long Term

Description: Preventing foodborne illness is a goal that does not lessen. More than 250 foodborne diseases have been described and present a significant public health challenge. An estimated 76 million persons per year experience gastrointestinal foodborne illnesses in the U.S. An estimated 325,000 serious illnesses per year result in hospitalizations in the US. An estimated 5,000 deaths per year result from foodborne illnesses in the U.S. The American population continues to eat out in ever-increasing amounts. Georgia has over 22,000 inspected foodservice establishments and an industry that employs over 382,000 people and generates over \$13 billion in sales (National Restaurant Assn. projections for 2007). An ever-increasing diversity in the food supply and diversity among types and sizes of foodservice establishments and community-based food assistance programs present challenges to food safety and keeping a knowledgeable workforce. University of Georgia Extension has been offering ServSafe® programs for 12 years and is a recognized provider in the state. It also has had a consistent reputation for food safety education for organizations such as child care facilities, personal care homes, and other types of group homes. Agents are already seeing increased requests for programs and larger class sizes in ServSafe®.

Trend: 1) Both the Ga. Dept. of Human Resources (as of 12/07) and the Ga. Dept. of Agriculture (as of 2005) have required food safety manager certification in their food codes. The Georgia DHR foodservice regulations also mandate that managers provide documented employee food safety training, and many are requesting ServSafe® employee programs. 2) All Georgia foodservice establishments required to have certified food safety managers must be in compliance by December 2009, and new applicants must receive training within 90 days before being licensed. 3) The employee turnover in the foodservice industry is extremely high, producing a continual need for training. 4) Increased use of, and community interest in, local food banks and other assistance programs are yielding additional needs for food safety programming and/or foodhandler certification programs. 5) Some types of foodservice require more specialized and tailored assistance than ServSafe® can provide to interpret and fulfill regulations given their types of operations (e.g., family day care, group homes, food banks and community/civic organizations and churches). 6) It is costly for small, independent foodservice operators to attend trainings far from home, so local opportunities that do not require overnight travel and expenses are needed.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

Add'l Resources: ServSafe® program of the National Restaurant Association for manager certification and employee trainings. In-state curricular-type resources for specialized audiences, such as: Smart CareGivers Fight BAC! For In-Home Child Care Providers. Personal Care

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Lack of Knowledge Among Youth About Safe Food Handling*

State Issue: Food Safety

Status: Long Term

Description: Children under age 10 account for 33% of the total costs attributed to foodborne illness. The risk of foodborne illness in children is higher due to lower body weight and underdeveloped immune systems. Children have a higher risk of developing serious complications from pathogens, such as E. coli O157:H7 and Salmonella, than do adults. In addition, studies have shown that even at the seventh and eighth grade level, children have only a fair knowledge of food safety, yet they are the future of food handling in the U.S. According to the National Restaurant Association, about 30% of all restaurant employees are between the ages of 15 and 19.

Trend: FDA Center for Food Safety and Applied Nutrition (CFSAN) has observed an increased interest in materials to teach children about safe food handling as well as increased interest in food safety education at all levels. In various settings such as the National Science Teacher Association Annual Meeting, American Public Health Association conferences and American Association of Family and Consumer Sciences conference, CFSAN reports that elementary-level teachers are choosing food safety materials and teachers recount using food safety materials with all grade levels. One key focus of FCS teachers is preparing and certifying high school students who are considering a career as a dietitian or chef, or in food and beverage management. FCS teachers directly incorporate food safety content into their classes and are training the next generation whose careers will center around food. Cooperative Extension's program goal is to help youth acquire knowledge about safe food handling, specifically: handwashing, personal hygiene, separating raw from ready-to-eat foods, checking the temperature of food to determine doneness and chilling foods to the proper temperature for safety.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: 1) Smart Kids Fight BAC! Curriculum – includes cartoon video, teacher guides, activity booklets, story book, posters, computer game CD-ROM. 2) Food Safety Game Wheel and Questions for exhibits. 3) Smart Kids Fight BAC! 3-panel exhibit.

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Preserving Food at Home*

State Issue: Food Safety

Status: Long Term

Description: Home food preservation remains an important and popular cultural activity. The University of Georgia is home to the National Center for Home Food Preservation and thus hosts an extremely popular website used internationally. We can report from the National Center correspondence and requests for information that consumer interest in preserving food at home is increasing quite a bit in 2008. Media and educators around the country are reporting renewed interest, also. Reporters and email writers are indicating first-time canner status, as well as people returning to canning after years of putting it aside, in addition to the consistent users. It is critical that those who practice preserving and processing foods at home have access to the most reliable information available concerning food safety and food quality. Cooperative Extension and USDA have long been recognized as credible sources for science-based recommendations, yet national surveys conducted by our department in 2000 and 2005 show that there are still some unsafe canning practices that persist in experienced canners.

Trend: 1) Increasing current interest in preserving food at home (as well as growing it) due to food security concerns over imported foods. 2) Increasing current interest in preserving food as a way to support local growers by buying locally when in-season and then having to store it for use later in the year. 3) High interest in processed foods as an entrepreneurship activity to make money. 4) High interest in acidified foods such as salsas and other condiments or specialties, which present the need for controlled canning processes and procedures for safety as a shelf-stable food. 5) Unsafe home canning practices that need educational attention and that have been documented in national surveys include underprocessing of low-acid foods resulting in high risk for botulism, failure to have dial gauges on pressure canners tested and using historical yet unsafe methods for canning. 6) The UGA "So Easy to Preserve" book and videos are used as primary references in the majority of other state Extension programs. The book has sold out of stock each of the past two spring/summers; we sell several thousand copies per year. The 5th edition has had 9,000 copies printed in two years. This interest demonstrates popularity of the content, as well as the need to make sure our own statewide faculty are kept up-to-date on a program with such national visibility. 7) Requests for demonstrations and workshop programs as well as Master Food Preserver programs in Georgia are higher than ever in early 2008.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Video series (8 shows), Book - So Easy to Preserve, Online self-study, Three-panel exhibit for So Easy to Preserve, Dial Gauge testers, Most likely ready for pilot in Summer 2009, Master Food Preserver program.

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Breast and Cervical Cancer in Low Income Women*

State Issue: Food, Nutrition & Health

Status: Long Term

Description: According to the Behavior Risk Factor Surveillance Survey conducted by the Centers for Disease Control (CDC), 16% of American women over age of 18 in the year 2006 did not get a Pap Test within the past three years and 23.5% of women over the age of 40 did not have a mammogram within the past two years. In Georgia in 2006, 12.6% of women over the age of 18 did not get regular Pap Tests and 21.4% over the age of 40 did not get recommended mammograms. Nationally and in Georgia, as income decreases percentages of women not getting regular cancer screening goes up progressively. For example, in Georgia during 2006, 18% of women earning less than \$15,000/year did not get PAP tests vs. 9.9% of women earning between \$35,000 and \$50,000/year.

Trend: The Georgia Department of Human Resources established the Georgia Breast and Cervical Cancer Program (BCCP) in 1992 with funding from the CDC. This program offers Pap tests to low-income, uninsured women between the ages of 18 and 64 and mammograms to women between the ages of 40 and 64. Women with abnormal results can then have diagnostic follow-up and case management with referral to the Women's Health Medicaid Program if cancer is diagnosed. Although approximately 15,000 women are served annually, not all eligible women are served. The Cooperative Extension's goal for this issue is to refer low-income, rarely and never-screened women to the BCCP program from the Cooking for a Life Time Cancer Prevention Cooking School and from other Extension programs like day care provider trainings, EFNEP, ServSafe® programs and health fair exhibits.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Breast and Cervical Cancer Exhibit

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Increasing Obesity and Overweight in Population*

State Issue: Food, Nutrition & Health

Status: Long Term

Description: More Americans are becoming overweight or obese. Georgia has higher rates of obesity than the nation as a whole. Not enough adult Georgians are physically active on a regular basis and 75% do not get enough fruits and vegetables daily. More children are also developing weight problems. According to the 2005 "Georgia Data Summary on Obesity in Children and Youth," 51,000 middle school students are obese (14%) and 46,000 high school students are obese (11%). Only two in three middle and high school students are vigorously active and only one in five high school students eats five or more vegetables and fruits per day.

Trend: The percentage of adults in Georgia who are obese has increased from 10.8% in 1990 to 27.1% in 2007. The total number of overweight and obese individuals is now 61.7%, up from 45.6% in 1990. A continued increase in the percentage of children and youth who are overweight and obese is expected because a higher percentage of school-age children were overweight and obese than older students, according to a survey done by the University of Georgia. Cooperative Extension's goal for this issue is to enable individuals, families and communities to make the behavior and environmental changes that will reverse, or at least slow down, these trends by offering programs such as Walk-a-Weigh and Walk Georgia and various curricula for the prevention of childhood obesity like Power of Choice, Wellness in the Rockies and the We Can Program.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Walk Georgia Web site - www.walkgeorgia.org

Web Page: www.fcs.uga.edu/ext/internal/fdns/child_overweight.php

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Less than Optimal Dietary Intake Increases Risk of Chronic Disease*

State Issue: Food, Nutrition & Health

Status: Long Term

Description: According to the Centers for Disease Control and Prevention, 75% of Georgians fail to consume fruits and vegetables five or more times each day. In addition, the average intake of dairy products is less than the recommendation of the equivalent of three cups of milk each day for everyone over nine years of age. Intakes of sodium and fat continue to be higher than recommended. Poor nutrition increases the risk of chronic diseases, including hypertension and osteoporosis. Education on the importance of nutrition to health is crucial.

Trend: The importance of fruits and vegetables to good health is well established. The recommendation to eat five servings of fruits and vegetables a day (approximately ½ cup per serving) was changed in 2005. MyPyramid now recommends 2 cups of fruit and 2.5 cups of vegetables each day for the average adult (2,000 calories a day), which is approximately 9 servings, almost double the previous recommendation. Georgians are falling far short of meeting this goal, which increases their risk for chronic disease. In addition, diets low in calcium increase the risk of both osteoporosis and hypertension. The percentage of adults in Georgia who have been told that they have high blood pressure increased from 20% in 1995 to 27% in 2005. Efforts to educate Georgians on the Dietary Guidelines for Americans, including the importance of limiting sodium and fat, are crucial to help decrease the risk of chronic disease.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Prevalence and Economic Costs of Diabetes*

State Issue: Food, Nutrition & Health

Status: Long Term

Description: At this time, 20.8 million people have diabetes and 6.2 million are undiagnosed. Due to the increased cost of health care and the lost productivity of individuals that are still in the work place, the economic impact of diabetes is staggering. In 2007, the total annual economic cost of diabetes and its complications was estimated to be \$174 billion in the United States. In Georgia, in 2006 approximately 608,000, or 9% of the population, had diabetes, which is 2% higher than the national rate. Diabetes is the seventh leading cause of death. People of African, Asian, Native American and Hispanic Latino descent have a higher incidence of diabetes than those of Northern European heritage.

Trend: According to the Centers for Disease Control, the number of diagnosed cases of diabetes has doubled in the last 15 years. As the population gets older and more diverse, the incidence and cost of diabetes is likely to continue to soar. The American Diabetes Association states, "Much of the cost is preventable through diet and exercise, prevention incentives to reduce the prevalence of diabetes and its comorbidities and improved care." The Cooperative Extension program goals for this issue are to reduce the incidence of diabetes with weight control and exercise programs like Walk-a-Weigh and Walk Georgia and to provide educational programs like Right Bite Diabetes Cooking School and Seniors Taking Charge of Diabetes that will help individuals with diabetes to control their blood glucose better and reduce the incidence of diabetic complications like heart disease, kidney failure, blindness and amputation.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Focus on Diabetes CD for the client

Web Page: www.fcs.uga.edu/ext/pubs/food/diabetes.php

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Rising Food Costs Make Obtaining a Healthful Diet More Challenging*

State Issue: Food, Nutrition & Health

Status: Long Term

Description: Food prices are rising at rates not seen since 1990, according to USDA. The cost of food is projected to increase 4.5% to 5.5% in 2008. The price of eggs has increased 18.2% above the May 2007 level, dairy prices are up 11% from May 2007 and cereals and breads are up 10.5% from last year at this time. Fresh fruits are up 4.7%, although some fruits have gone up even more, such as bananas (21.7%) and apples (7.4%). Although Americans spend only 9% of their annual income on food, down from 21% in the 1950s. Although food costs are lower in the US than in many parts of the world, the increase in food costs, combined with the increased cost of fuel, will make it more difficult for families to consume a healthful diet. It will be important for Cooperative Extension agents in Family and Consumer Sciences to educate consumers on all aspects of healthy eating on a budget, including food safety and storage, food shopping, meal planning, and food preparation (USDA Economic Research Service, Food CPI, Prices and Expenditures: CPI for Food Forecasts, www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/Data/cpiforecasts.htm, accessed 6/24/08).

Trend: Food prices are increasing due to high energy costs and decreased supplies. This trend is likely to continue, at least for the next few years, due to increased demand for food in countries such as China and India and the high cost of energy.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Drought Conditions*

State Issue: Healthy, Safe & Affordable Housing Environments

Status: Long Term

Description: The urgency for water conservation education came to the forefront of 2007 as Georgia was facing a drought of historic proportions. Georgia has faced droughts in the past, but in 2007 the state found itself asking consumers and businesses to reduce their water use. The state and county governments implemented restrictive watering guidelines for outdoor water use and implemented an extensive education program to help consumers make water conservation part of their daily lives. Predictions by the state climatologist are for ongoing drought conditions.

Trend: In times of drought, consumers are reminded that water is a limited resource. In 2007, consumers responded to the request by the state to reduce water use. In the 55 north Georgia counties at level four drought conditions, water use declined by an average of 12 percent. These reductions are meant to be long-term, not just during a period of drought. Nationwide, a family of four uses 400 gallons of water every day. According to the 1999 Awwa Research Foundation study, close to half of the water used inside our homes is for toilets and washing machines. If one in 10 homes in the U.S. replaced faucets, showerheads and toilets with WaterSense labeled fixtures, we could save more than 120 billion gallons and more than \$800 million annually. Water and energy conservation go hand-in-hand. Several Energy Star products are designed to reduce both energy and water use. The choices we make for heating our homes also impact our water consumption. It takes 1.65 gallons of water to produce one kilowatt hour of electricity. In drought-stricken Georgia, every drop counts.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Speakers and Presenters for County-based Training Opportunities

Web Page: www.fcs.uga.edu/ext/housing/water_conservation.php

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: ***Housing Market***

State Issue: Healthy, Safe & Affordable Housing Environments

Status: Long Term

Description: Alternative mortgage products, adjustable-rate mortgages and economic challenges have contributed to an increasing number of delinquent loans and foreclosures nationwide. In 2007, there were 10.3 foreclosures for every 1,000 homeowners. Georgia had the distinction of being one of eight states with a foreclosure rate over 15 for every 1,000 homeowners. The housing market is even more confusing for consumers than it was before the downturn in the housing market. Consumers with existing credit challenges are finding it more difficult to obtain a home loan. Homeowners face challenges when trying to refinance their loans or access the equity in their homes. Predatory lending practices abound. Construction of new homes has been plentiful in urban areas, but housing starts in many rural counties remain low, resulting in limited housing options in these communities. About one-third of the homes were built before 1978 and are likely to have lead-based paint in them. These aging structures may also be in need of repairs and modifications to make them safe and energy efficient.

Trend: Rising foreclosures have resulted in a number of new mortgage products such as FHA Secure to help homeowners refinance their adjustable rate loan into a fixed-rate loan. Refinancing may resolve the immediate mortgage issues, but much more is needed in the way of educating consumers on budgeting, saving and the use of credit. Limited resources should not result in limited care and maintenance of homes. Homeowners need to learn to maintain their homes, safely remove lead paint and replace or repair aging materials. As a HUD-approved housing counseling agency, UGA has responded to the housing needs of Georgians by providing education and counseling on financial management, and buying and maintaining a home.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: UGA is a HUD-approved housing counseling agency. A listing of UGA county offices that provide housing counseling: www.hud.gov/offices/hsg/sfh/hcc/hcs.cfm?webListAction=search&searchstate=GA

Web Page: www.fcs.uga.edu/ext/housing/

Primary Contacts: Pamela Turner, Housing and Consumer Economics, pturner@uga.edu

Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Rising Energy Prices*

State Issue: Healthy, Safe & Affordable Housing Environments

Status: Long Term

Description: Since 2001-02, heating fuel prices have steadily risen, placing a heavy burden on many family budgets. About half of the energy used by households goes to heat and cool their homes. Rising prices have the greatest impact on low-income and older consumers with limited financial resources. Over half of older households in the U.S. use natural gas as their primary heating source. Prices for natural gas have risen at a faster rate than electricity placing an undue burden on these households. At the same time, deregulation of natural gas in Georgia allowed for more choices while adding much confusion for many consumers.

Trend: Rising prices have prompted many consumers to implement low-cost or no-cost energy conservation practices. At the same time, more businesses are offering light bulb exchange programs to encourage the use of compact fluorescent light bulbs. If every home in America replaces just one light bulb with an Energy Star bulb, we would save enough energy to light more than 3 million homes for a year. New products and federal tax incentives to adapt energy-efficient practices have helped to prompt many consumers to add insulation, install energy efficient windows or purchase an Energy Star appliance. Ongoing state and local weatherization programs help low-income consumers make their homes more energy efficient.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Natural gas education program website - <http://www.fcs.uga.edu/naturalgas/>

Web Page: www.fcs.uga.edu/ext/housing/

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Growth of Foreign Born Population*

State Issue: Other: Diversity and Cultural Competence

Status: Long Term

Description: According to the U.S. Census, Georgia is the sixth fastest-growing state. Only the states of California, Texas and Florida added more people. Based on percentage, Georgia was the fastest-growing state east of the Rocky Mountains. Georgia's growth was powered by high levels of in-migration and immigration. Less than half of Georgia's growth was due to natural increase. Between 1990 and 2000, over 1.7 million new residents settled in Georgia and over 24 percent of those residents were recent immigrants. Between 2000 and 2006, Georgia's foreign born population saw a 48 percent change, growing from 577,273 to 859,590. The majority of the foreign-born in the United States speak a language other than English at home. The region with the highest percentage of non-English speakers is the South. Georgia with 40.1 percent is one of nine states where over 40 percent of the foreign-born residents speak a language other than English at home and have limited English proficiency.

Trend: Though the largest segment of Georgia's foreign-born population is from Latin America (55.8 percent), Georgia's new residents represent all regions of the globe. Over 8 percent are from Africa, 24 percent from Asia, 10 percent are from Europe and 3 percent come from other regions. Georgia surpasses the nation's 3.7 percent from Africa and 53.5 percent from Latin America. In 2006, the countries with the highest representation of total foreign born living in Georgia were Mexico (32 percent), India (5.5 percent) and Korea (4.3 percent). The state has also had a robust growth in its African American population. Between 1990 and 2000, Georgia's African American/Black population increased by almost 35 percent, making it the state with the third-largest African American/Black population. According to the 2000 census of the top ten states with the largest foreign born from Africa, Georgia was eighth. Cooperative Extension goals related to this issue are to identify resources that address the needs of the state's diverse population, recognize the importance of culturally accessible programming and materials and identify underserved audiences in order to efficiently transfer information and knowledge from the University of Georgia and other research based sources to local clientele in every county.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: UGA Extension Faculty International Study Exchange

Web Page: www.fcs.uga.edu/ext/pubs/spanish.php; <http://extensionenespanol.net/>;
www.casd.cornell.edu/pdf/CASDE%20Collab%20NatnlDivCtr.pdf;
www.extension.org/pages/Ideas,+Resources+and+Solutions+for+Diversity+on+National+Extension+Site;
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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Suicide Prevention*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: Suicide is the ninth-leading cause of death in Georgia, rising from eleventh in previous years, and the third-leading cause of death in young people age 15-24. Each year in Georgia more than 900 people die by suicide. For every completed suicide there are 25 attempts serious enough to require a visit to the emergency department of the local hospital. Young people have the highest number of attempts, middle aged men have the highest number of completed suicides and seniors have the highest rate of completed suicides. Although suicide and suicide attempts have been a continuing problem, they are just emerging as an issue because of the enormous stigma attached to suicide, suicide attempts and the chronic mental illness that is a cause of many suicides and attempts. Preventing suicide means mobilizing communities and individuals to promote awareness, education, and help seeking behavior and supporting community providers of service in using evidence-based practices in suicide prevention.

Trend: Within Georgia, suicide and attempts are on the rise in African American and Hispanic youth, veterans, military personnel and seniors. With the crisis in obtaining mental health care, there is concern that people with chronic mental illness will not get the help they need. There is also concern that the downturn in the economy and the drought will increase suicide and suicide attempts throughout Georgia. In 2008, there is already a rise in completed suicides over the number in 2007. There is a trend in policy and funding to address suicide prevention at both the federal and state level. Federal legislation and funding is already in place for suicide prevention for youth and veterans; federal legislation and funding is proposed for seniors and military personnel and their families. The Georgia legislature has designated the DHR Division of Public Health as the agency within DHR responsible for suicide prevention and has allocated funds yearly for suicide prevention. The Division of Public Health has taken a public health approach to suicide prevention and is committed to supporting efforts at the local level. To this end, the Georgia Suicide Prevention Coordination Project was developed to encourage the development and sustainability of suicide prevention coalitions in each public health district and UGA Cooperative Extension, FACS, has the contract for the project. Therefore, in Georgia there is a trend toward local communities organizing and delivering suicide prevention awareness activities, interventions, and tracking of impact that embraces many stakeholders.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Technical assistance in developing suicide prevention coalitions in each Georgia public health district

Web Page: www.gspin.org (in development)

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Caregiving for Seniors*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: As baby boomers enter their retirement years and the average lifespan continues to increase, families and communities are facing significant challenges in providing quality care for seniors. Family and friends, not public or private service programs, provide the vast majority of long-term care services for seniors. More than 75% of all people receiving long-term care at home rely exclusively on family and friends for that care. In Georgia, nearly one million persons are providing one billion hours of senior caregiving every year, with an estimated market value of \$9 billion. With support and education, most of these caregivers can continue to provide quality caregiving at home while juggling their other responsibilities as well.

Trend: Traditionally, the primary focus of long-term care research and programming has been the care recipient. Recently, more attention is being paid to the needs of the caregiver. Communities are recognizing the critical role that family caregivers provide and how important it is to support these caregivers. Reduced public and private costs and enhanced quality of life, for both the care recipient and caregiver, are proven outcomes of caregiver support. Cooperative Extension is a leading source of research-based education on senior caregiving. In Georgia, Cooperative Extension is collaborating with other statewide organizations to provide local courses such as "Powerful Tools for Caregivers" and other educational resources.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations

Add'l Resources: "Powerful Tools for Caregivers" Training

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Grandparents Raising Grandchildren*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: Grandparent-headed households are one of the fastest growing family forms. In Georgia, about 6% of all children under 18 live in families headed by grandparents. Grandparents who have primary responsibility for raising their grandchildren have unique needs for education and support that are different from the needs of other parents and caregivers.

Trend: The number of children living with and being cared for by their grandparents has increased dramatically over the last 30 years. According to the 2000 U.S. Census, 5.8 million American grandparents live in a household that includes grandchildren under age 18, and 2.4 million (42% of all co-resident grandparents) have primary responsibility for raising those grandchildren. For many grandparents, raising their grandchildren is a long-term responsibility. The Census Bureau reports that 39% of grandparents raising grandchildren have been the primary caregivers for five years or more. The incidence of grandparent-led families in Georgia is higher than the national average. Approximately 8% of Georgia's children under age 18 live in grandparent-headed households, according to the 2000 U.S. Census. In Georgia, 92,265 grandparents report that they are responsible for their grandchildren living with them. The number of Georgia children living in grandparent-headed households increased by 29% between 1990 and 2000. There are a variety of reasons why grandparents may assume a parenting role, most of which revolve around problems related to the child's parent. Increasing numbers of grandparents are providing care to their grandchildren as a result of divorce, substance abuse, child abuse or neglect, abandonment, teen pregnancy, death, incarceration and mental health problems. Raising grandchildren requires a great deal of responsibility for the grandparent who takes on the task. These grandparents often lack information about the range of support services, benefits and policies they need to fulfill their caregiving role. In addition, grandparents often encounter other obstacles surrounding their role including health, social, economic and child-rearing difficulties. As the number of grandparents raising grandchildren continues to rise, it is important for grandparents to be as informed as possible about how to meet their financial, legal, educational, social support, child care, and parenting needs. Grandparents could benefit from education on child development and parenting, parenting children with special needs, family-school relations, positive guidance, and personal and family stress management. Many grandparents raising grandchildren also benefit from participating in a grandparent support group where they have opportunities to share challenges, stresses, ideas and resources and to provide each other with social support and practical advice.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Parent Education*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: Research reveals that an involved, warm and supportive parent is one of the most influential factors in a child's development. However, changes in the context of childbearing and childrearing (e.g., increasing proportion of babies born to unmarried mothers; continued prevalence of divorce; rising number of stepfamily households) coupled with the increasing socio-economic stresses impacting families (e.g., unemployment or underemployment; economic declines) has made it more challenging for parents to effectively meet the developmental needs of their children. Therefore, parenting education that targets specific family types, reaches parents at critical stages and transitions in their family, and focuses on age appropriate behaviors can contribute to providing parents the knowledge and skills needed to optimize parent-child relationships and cultivate healthy, contributing, well-adjusted children.

Trend: Parallel with the population growth in Georgia is the continued increase in the total number of annual births. In 2006, there were 148,403 births in Georgia, 39% of which were first births. Since 2000, the percent of all births in Georgia to unmarried mothers has increased each year (42% in 2006 vs. 37% in 2000) with a higher proportion of these out-of-wedlock births occurring among African American (68%) and Latina (49%) females compared to White females (25%). In 2006, 12% of all births in Georgia were to adolescents, and recent trends show that the rapidity of the declining birth rate among adolescents (age 19 or younger) since 1991 has dramatically slowed. Most concerning is the slight increase in 2006: 12.1 births per 1000 women age 10-19 (vs. 11.9 in 2005). These childbearing trends are compounded by the fact that a high proportion of children are likely to experience parental divorce (roughly 65% of couples divorcing have children) and nearly 1 in 3 children will reside in a stepfamily (married or unmarried) household. In addition, children growing up in Georgia are at an increasing risk of experiencing economic hardship: in 2005, 20% of children were living in poverty (vs. 18% in 2000) and 34% were living in families where no parent had full-time, year-round employment (vs. 32% in 2000). Together, these alarming trends suggest that parents are experiencing transitions and stresses that can challenge their capacity to attend to the social and emotional needs of their children. Cooperative Extension's program goal is to help parents develop and enhance their parenting skills by understanding human development, identifying developmentally appropriate approaches to child-rearing and learning techniques to reduce stress that undermines positive parental functioning. We can do this by customizing programs to specialized groups such as parents of teens (vs. infants, toddlers or school-agers), divorcing parents, stepparents, foster parents, grandparents raising grandchildren, fathers and parents in targeted ethnic/cultural groups. We can use a variety of educational outlets to reach and educate parents including age-paced newsletters, fact sheets, bulletins/brochures, radio spots and workshops. Last, we can work with other professionals (e.g., child care providers) to help them understand the unique challenges facing children and parents and strategies to support them.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.gafamilies.org; www.parentinginfo.org; www.extension.org/parenting

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS **Department:** FACS Extension

Emerging Issue: *Safety of Children and Youth*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: Unintentional injuries are one of the leading causes of injury and death in American children under age 20. Most injuries can be prevented through community-based education programs that help children, youth and families learn new behaviors. Preventing injuries requires the cooperation of children, families, out-of-home caregivers, teachers and others in society.

Trend: According to the Safe Kids Coalition, unintentional injuries are the leading cause of death for children under age 14 in the United States. In 2000, more than 5,600 American children died from unintentional injuries, and one in five American children visited the emergency room for an unintentional injury in 2000. The most common types of unintentional injuries include falls, fires and burns, suffocation and choking, pedestrian accidents and motor vehicle crashes. Young children are especially susceptible to unintentional injuries. Most young children lack the social maturity, experience and problem-solving skills to assess potentially dangerous situations. Even when they sense danger, young children may not know how to respond in an appropriate manner. Without an adequate knowledge of basic safety practices, young children are dependent upon their families and teachers to help ensure protection. Unfortunately, such protection is not always present. There are multiple costs associated with children who are in poor health, including costs to children, costs to families and costs to society. For instance, being in poor health limits many aspects of children's lives, including their classroom attendance and performance, their social development and their ability to participate in physical activities. Family income is also negatively impacted when family members must take time off from work to care for a sick or injured child. On a societal level, child illnesses and injuries also contribute to escalating health care costs. Unfortunately, it is estimated that 11 million children in the United States under the age of 19 do not have health insurance. Most child and adolescent injuries can be prevented. Community-based education programs can help children and adults learn safety behaviors. Education of children, youth, parents and teachers plays a major role in helping them develop the knowledge and practice the skills needed to be healthy and safe. In addition, parents and caregivers can dramatically reduce the risk of injury through prevention strategies such as removing hazards from the home and child care environments, installing and using child safety seats, and providing age-appropriate supervision and guidance of children's activities. Teaching safe habits to children, youth and adults can reduce the childhood, family and societal costs of unintentional injury, such as lost school and work time.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Georgia Traffic Injury Prevention Institute has a variety of resources available. Child Passenger Safety Technicians can provide child safety seat checks in local communities.

Web Page: www.ridesafegeorgia.org/; www.fcs.uga.edu/ext/ece/index.php

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Strengthening Couple and Marital Relationships*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: For the state and local taxpayers of Georgia, divorce and unwed childbearing costs \$1.46 billion each year – almost 8% of the 2007 state budget of \$19.2 billion. The costs incurred by the state of Georgia make it the ninth highest of all 50 states. Healthy relationships and marriages, and resulting family stability specifically, benefit the physical, social and emotional well-being of adults and children as well as the community. Couples in healthy marriages enjoy greater financial wealth, exhibit more positive parenting practices, have stable employment and are less likely to be victims of domestic violence. When a higher percentage of couples have healthy marriages, communities tend to have lower crime rates, lower rates of juvenile delinquency and lower teen pregnancy rates. However, marriage appears to be fragile and single-parent and unmarried-couple families are becoming increasingly common in today's society. Still, a two-parent family doesn't guarantee less risk: it can be unhealthy and even dangerous when the couple's relationship is marked by unresolved conflict and dissatisfaction. The "triple threat" of marital conflict, high divorce rate and increasing out-of-wedlock birth rate has led to a generation of children at greater risk of poverty, alienation and antisocial behavior. The economic consequences for Georgia are enormous.

Trend: Consistent with national trends, the marriage rate in Georgia continues to decline (7.6 per 1000 total population in 2003 vs. 10.3 in 1990) and nearly half of all marriages in a year are remarriages. Nationally, the lifetime probability of divorce or separation remains near 50% and the risk is higher for remarried couples. In Georgia, estimates suggest that nearly one divorce occurs annually for every two marriages. Of most concern, the percentage of children who grow up in fragile -- typically fatherless and poor -- families has grown enormously over the past four decades. This is mainly due to increases in divorce and out-of-wedlock births. Estimates suggest that nearly 65% of couples who divorce have children, and since 2000, the percent of all births in Georgia to unmarried mothers has increased each year (42% in 2006 vs. 37% in 2000) with a higher proportion of these out-of-wedlock births occurring among African American (68%) and Latina (49%) females compared to White females (25%). As a consequence of these dramatic shifts in family structure, more children are exposed to the risk of poverty: In 2005, 6.6% of married-couple families with children under age 18 lived in poverty compared to 39.6% of female-headed households with children under age 18. The future welfare of Georgia's children can be greatly enhanced by the development of healthy relationship skills of their parents that result in healthy and stable families. The elements of a healthy marriage can be learned, and educational programs focusing on communication, conflict management, interpersonal skills and information regarding healthy relationship development can improve the well-being of individuals, couples and families. Cooperative Extension's program goal is to help individuals (youth and adults) and couples develop the competencies and skills needed to form and sustain healthy relationships. We can do this through collaborating with community partners to offer programs to couples preparing for marriage; increasing public awareness and improving community resources about healthy marriage programs (e.g., newsletter articles, bulletins); expanding current programs that serve at-risk audiences (e.g., low-income; single, cohabiting and remarried parents; teen parents) to include relationship and marriage enrichment content; and integrating relationship and marriage skills training into existing and new programs serving parents as well as youth.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: PowerPoint Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Web Page: www.gamarriages.org; www.nermen.org

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Outlook 2008: Trends, Issues and Resources

Program Area: FACS

Department: FACS Extension

Emerging Issue: *Training and Education for Child Care Providers*

State Issue: Positive Development for Individuals, Families & Communities

Status: Long Term

Description: A large percentage of children under age six attend child care learning centers, family child care homes or other forms of out-of-home care either part-time or full-time while the adults in their families work. Research indicates that high-quality child care has positive effects on children's cognitive, social and emotional development and school readiness. Low-quality programs not only do not contribute to positive development, but may actually be detrimental to children's development. Unfortunately, many child care programs in the United States are of mediocre or poor quality. Ongoing, in-depth training and education for child care providers can teach information and skills that help them provide sensitive, responsive and developmentally appropriate care and learning experiences for children.

Trend: According to the U.S. Census Bureau, 87% of children under six live in a family where at least one parent is employed full-time, and 33% live in a two-parent family with both parents working full-time. Some form of child care is needed while those parents are at work. Children receive child care either in their own home or in out-of-home settings (including child care centers, registered family child care homes, and the homes of neighbors, friends, or relatives). About 53% of Georgia's young children attend an early childhood, preschool or prekindergarten program, and many more attend family child care or are cared for by non-parental adults in their own homes. Early childhood settings are educational experiences, not simply custodial care, while parents are working. Young children in high-quality child care programs (whether they are center-based or home-based) learn valuable motor, language, cognitive, and social-emotional skills in child care that contribute to their school readiness, social skills and emotional well-being in elementary school and beyond. Unfortunately, not all child care programs provide a high-quality experience. Child care quality is measured through a combination of many indicators, such as low adult-to-child ratios, small class sizes, developmentally appropriate curriculum and materials, opportunities for hands-on play and exploration, warm and sensitive teacher-child interaction, appropriate guidance strategies and opportunities for family involvement. One of the most important factors that determines child care quality is the education of the caregivers. Research indicates that child care providers with more education and training provide better-quality care and are more responsive to children's needs, regardless of the amount of child care experience they have. Only a small percentage of early childhood educators have a bachelor's degree or higher. Research repeatedly confirms that the quality of early care and education is closely linked to a variety of child outcomes. Children in high-quality settings tend to be more successful than children in low-quality settings. Unfortunately, most child care in Georgia and nationwide is only of marginal or poor quality. High staff turnover, lack of training and experience and low staff wages contribute to low-quality care. Georgia's average hourly wage for child care providers is \$7.47 per hour, which is two dollars lower than the national average. Few child care providers receive any paid benefits, even with many years of experience. Quality child care that is affordable, accessible and convenient is not available to many Georgia parents. Child care is the third highest household expense for most families of young children (after shelter and food). High-quality care tends to be substantially more expensive than lower-quality care.

Resources and Faculty/Staff Available to Support County Programming on Emerging Issue

Resources: Digital Slide Show (PowerPoint) Presentation; Fact Sheets/Departmental Publications; Individual Assistance/Consultations; Speakers and Presenters for County-based Training Opportunities

Add'l Resources: Child Care Training page on the FACS Extension website is under development in Summer 2008.

Web Page: www.fcs.uga.edu/ext/ccqm/index.php

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