456 Growing the undergraduate poultry science program at North Carolina State University: Undergraduate recruitment strategies & program development. J. B. Hoffman*, North Carolina State University, Raleigh.

Maintaining a substantial undergraduate population in a highly specialized major such as poultry science can be quite challenging when competing with larger, well-known majors like biology or animal science. However, with creative recruiting strategies and the development of recruitment conduits from high school programs to undergraduate Poultry Science departments, undergraduate growth can increase at an exponential rate. For example, the undergraduate poultry science population at North Carolina State University (NCSU) has increased by 82% since August 2008 from 56 students to 102 students in March 2011. Growth has occurred in both the science and technology concentrations offered with a 63% increase in enrollment in the science concentration and a 200% increase in enrollment in the technology concentration. A plethora of recruitment strategies are responsible for the significant growth in the NCSU undergraduate poultry science population. Recruitment strategies have primarily focused on developing the “ASPIRE”- Acquiring SAT Preparation in Rural Education program, a summer SAT preparatory program offered to high school juniors and seniors interested in pursuing Poultry Science degrees at NCSU. Additionally, veterinary school application workshops for pre-veterinary students and recruitment seminars for double-majors have been implemented to attract undergraduate students interested in gaining a wider background in comparative anatomy and physiology to the NCSU Department of Poultry Science. Recruitment activities have also focused on interactions with high school students participating in the NCSU Poultry Science Summer Institute program, a week-long intensive summer camp aimed to expose high school students to opportunities in the poultry industry. These recruitment strategies represent a wide range of activities that may be implemented to maintain an active, substantial, and growing undergraduate student population at a large land-grant institution.

Key Words: recruitment, undergraduate students, enrollment trends

457 A field study to evaluate the efficiency of four types of incinerators on broiler breeder farms. A. J. Pescatore*1, J. Jacob1, and M. Miller*, 1University of Kentucky, Lexington, 2Kentucky Poultry Federation, Winchester.

Four incinerators of similar capacity were obtained from 4 manufacturers, (Choretime Shenandoah, National Incinerator, Southern Breeze and Earth smart). The incinerators were placed at 4 broiler breeder farms within a complex. All incinerators were set up to operate on propane gas. The weight and number of dead animals and culled eggs incinerated and fuel usage was recorded daily at each farm over a 6-week period. Wide variations in efficiency were observed for the 4 incinerators. The least efficient incinerator was able to operate at only 5.4 kg birds and eggs per gallon of propane. The most efficient incinerator operated at 26.2 kg/gallon of propane. The other 2 incinerators operated at 9.1 and 12.25 kg/gallon of propane. While incinerator design is important, other factors also influence the overall efficiency of the incinerator. Factors influencing the efficiency of the incinerators were duration of run time, ratio of birds to egg material, and total pondage per burn. Producers can improve the efficiency of their incinerators by incinerating full loads and following manufacturers recommendations. Incinerators have a role in dead animal disposal however there is wide variation in both original cost and operational cost. Both factors need to be considered to determine the ultimate cost of dead animal disposal.

Key Words: incinerators, energy efficiency, dead animal disposal

458 Pastured poultry in Georgia: Growers’ and consumers’ perspective. E. J. Van Loo1,4, W. Alali2*, S. Welander1, P. G. Crandall1, and S. C. Ricke1, 1Department of Food Science and Center for Food Safety, University of Arkansas, Fayetteville, 2Center of Food Safety, University of Georgia, Griffin, 3Georgia Organics, Atlanta, GA, 4New Organic Solutions, Fayetteville, AR.

Federal laws exempt farms processing <20,000 birds from USDA inspection but state laws may be stricter. In 2003, Georgia removed the exemption of their state rules, making it difficult for local poultry farms to process. With the US having a strongly vertically integrated poultry industry, there are few options for off-farm processing for small-scale farms and Georgia growers must travel to other states to process. The purpose of this survey was to 1) evaluate processing options for pastured poultry farmers in Georgia and 2) determine the consumers’ interest in pastured poultry. A total of 82 Georgia farms participated (37,642 bird/year). Most of these farms (81%) are processing on-farm but grow only 43% of the birds. They are mostly small farms (60%) is producing <500 birds/year). Some farms (18%) process off-farm in South Carolina and Kentucky where there are processors that serve small-scale farmers and provide USDA inspection. These farms are larger and process each more than 1,000 birds/year, responsible for raising 57% of the total amount of birds. Evaluation of the preferences for processing options shows that the off-farm drop-off scores the best, followed by on-farm processing, off-farm rental, and contract growers. Overall, off-farm processing was the most popular and would increase the number of pastured birds raised in Georgia. However, it may be difficult to find a location of one single facility to be convenient for all interested growers. The second part was a consumer study (n = 508) targeted to consumers with an interest in sustainable and local foods from Georgia. Approximately 96.6% of the respondents expressed an interest in supporting efforts to make sustainably raised poultry processed in Georgia available. Even for a high premium of $5/lb, respondents would shift 50% of their current chicken purchases toward this local product. The most important chicken product attribute was sustainably raised followed by Georgia grown, pastured raised and certified organic. Knowledge about the potential supply and demand for local pastured poultry can quantify the need for infrastructure to support processing for farms interested in raising chickens.

Key Words: pastured poultry, surveys, consumers, processing, local

According to the Office of the Actuary, Office of Policy and Planning of the Department of Veterans Affairs, there are about 2 million young military veterans in this country, with the largest concentration of veterans living in the South of the country. Many of these young veterans earn less and have a harder time finding work than do civilians in the same age group. At the same time, America’s farms require young people interested in agriculture. Studies have shown that a large percentage of enlisted young adults come from rural America, and at the end of their military service they would likely try to return to their place of origin and reincorporate to traditional local activities. In the last few years various organizations have initiated efforts to support the transition of returning veterans into farming life by offering internship opportunities for them. However, there are few educational programs specifically tailored to the particular needs and abilities of returning veterans. We are developing a unique learning and production program that would provide returning veterans with customized learning and training opportunities to initiate and succeed in their farming operations. Our objectives are to: 1) develop a comprehensive educational program that provides returning veterans interested in agriculture with relevant knowledge and tools to operate sustainable farms, focused primarily on integrated poultry, livestock and agroforestry systems; 2) develop various delivery strategies for our programs including an eLearning system and farmer friendly publications; 3) offer unique experiential learning opportunities such as workshops and internships for beginning farmers at production farms; and 4) create and offer custom mentoring strategies to provide an effective support system for farmers. This dynamic program is generating specific training and learning opportunities and networking systems for veterans new to farm production. This program is funded by the USDA-NIFA-BFRDP 2010-03143.

**Key Words:** educational and training program, new and beginning farmers and ranchers, returning military veterans