



Small Farm Field Day

Funding provided by Golden LEAF Inc.

GENETIC MODELS FOR PRODUCING UPSCALE PORK

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OBJECTIVE — Discuss genetic models for producing “Upscale Pork” for small-scale farmer application and demonstrate artificial insemination of “project pass-on” gilts (pubescent female pigs) in hoop structures.

OPPORTUNITY — In fewer than 25 years, North Carolina has lost more than 20,000 small-scale hog farmers and with it, their knowledge base.

Small-scale producers may be able to secure a place at the pork industry table by producing a different type of pork than the “the other white meat.” By selecting pork with higher levels of intramuscular fat (IMF), darker color and optimum pH levels, hog producers may be able to survive by marketing “the other red meat” through niche markets.

Farmers who have orchards may be able to produce “Porque de Seasons” by using finishing hogs to glean fallen cherries in the spring, peaches in the summer, and apples or acorns in the fall. However, alternative diets to produce niche-market pork are unlikely to influence flavor without adequate levels of IMF. It is likely that the niche market farmer needs to examine genetic lines of Duroc or Berkshire boars that have not been selected for lean gain.

With funding assistance from the Golden LEAF Foundation, Heifer Project International and USDA SARE, the N.C. A&T Small-Scale Hog Producer Project helps farmers find new markets and higher profit margins by raising swine in alternative systems that enhance the flavor of pork (diet, genetics and management practices), as well as the environment they are raised in. Current research focus is in developing protocols to test and identify breeds and breed combinations noted for enhancing IMF and as well as other traits that affect pork quality.

METHOD — 1). Artificially inseminate “Farmer’s Hybrid” gilts with semen from either two lines of Duroc or one line of Berkshire boars, not selected for lean conversion. 2). Discuss pig movement and methods to enhance estrous detection in hoop structures.

OUTREACH - Farmers will receive “pass-on” gilts after they are diagnosed as pregnant, and raise the “upscale” pigs to market weight for pork quality assessment. Discussion of previous studies at A&T to produce niche-market pork will be reviewed.