Abstracts of Submitted USDA SCBG Projects (FFY 2006)

Diagnostic Honey Bee Services

Honey bees are a vital part of Virginia agriculture. Many crops require insect pollination to maximize production and improve quality. The resulting enhanced harvest increases farm revenues. The honey bee is an ideal pollinator with each beehive containing thousands of individuals working together to gather nectar and pollinate plants. Hives are easily moved at appropriate times to the site of crops in bloom.

The introduction of new pest species has resulted in the loss of many beehives. The number of hives in Virginia available for pollination and honey production has decreased by nearly 68,000 over the past 25 years. The introduction of the Africanized honey bee is expected to further jeopardize availability of honey bees for crop pollination and honey production. To reverse this trend in hive losses, early detection is essential in containing and eradicating honey bee pests and diseases.

We propose to provide equipment for diagnostic services used in the identification of Africanized honey bees and other pests and diseases in beehives. This diagnostic equipment will provide beekeepers with the necessary tools for early detection and eradication of harmful pests and pathogens. These services will increase the number of beehives available to farmers for improved pollination of crops.

Beautiful Gardens™ Promotional Development

The Beautiful Gardens™ project was designed to create additional growing opportunities for existing plant producers as well as provide new agricultural production alternatives for those farmers not currently involved in plant production. This project specifically targets Virginia tobacco growers looking for new crops to cultivate.

Funding from the SCBG program will assist in the design and production/printing of promotional materials to be used in selected independent retail garden centers across Virginia. This is an integral part of the initial success of presenting Beautiful Gardens™ plants to consumers.

The primary partners are the Virginia Nursery and Landscape Association, Virginia Tech, Institute for Advanced Learning and Research, Virginia Department of Agriculture and Consumer Services and the Master Gardeners. Through the sale of plant identification tags, selected promotional materials and patent rights to new plant introductions, Beautiful Gardens™ will be self-sustaining in years to come.

Beautiful Gardens™ has come a long way over the last two years thanks to the hard work of people and organizations from all areas of the Virginia horticultural industry. The potential positive impact on production in Virginia and the financial benefits derived from the sale of Beautiful Gardens™ will provide significant impact to Virginia's specialty crop industry.

Development of Virginia Specialty Crop Sales on the Web
Internet direct sales can be an effective method to sell specialty crops. They can help establish direct sales to the consumer, and offer a much wider market for the sale of small volume and specialty crops. However, the initial cost of setting up a customized web site can be expensive and time consuming. Further, getting all the various non-farming procedures in place to function as a complete marketing system can be a daunting task.

Through the "Development of Virginia Specialty Crop Sales on the Web" an initial tool for internet sales will be developed and provided to producers, thereby assisting in the development, economic growth and marketing of Virginia's specialty crop producers. A menu-driven program will be developed which will generate a personalized web site with integrated pages that can be customized for description, display of products, ordering information, payment information and methods, packaging, and various shipping alternatives.

Using this menu driven program, specialty crop producers looking for alternative or additional markets for their product will be able to generate an effective web site. Information on web site hosting options, credit cards, shipping alternatives and packaging will be included so the specialty farmer can started selling the products with a minimum of cost, time and frustration, tying everything together.

Pittsylvania Pumpkins Demonstration Project
Through funding provided by the USDA Specialty Crop Competitive Grant, Owen Farm will implement the *Pittsylvania Pumpkins: Demonstration Plot* project. Grant funding will support planting five acres in a variety of pumpkin seeds in order to identify the best pumpkin variety based on production and marketing value for Southern Virginia. The successful project will result in an increase in Virginia's pumpkin production and sales thereby creating an alternative crop for production diversification. Further, the successful project will:

- Increase in the number of pumpkin producers in Pittsylvania County who market products to the public and are recognized by VDACS Virginia Finest Fresh Vegetables and/or Virginia Grown Pick-Your-Own Pumpkins.
- Increase the competitiveness of pumpkins growers in Southern Virginia by providing more farmers with vital information that will enable them to successfully produce a more marketable product.
- Research and provide information from the local market place that will identify the needs of stores, nurseries, florist, and local farmers markets.
- Partner with the Virginia Pumpkin Growers Association to advertise the pumpkin research and to support the "buy local" campaign and pick-your-own products.

Farmers' Markets as an Outlet for Specialty Agriculture Products
One of the most important direct market outlets for specialty agriculture products is the farmers' markets. A 2006 survey revealed that 47% of specialty crop growers surveyed sold through direct markets, and 85% of them sold in farmers' markets specifically. Currently there are more than seventy-five farmers' markets throughout Virginia.

The development of farmers' markets in Virginia is curtailed by a lack of information about operational management and constraints including a lack of information about the structure and economic impact of farmers' markets. Further, there is no "school of farmers' markets," thus no foundation of knowledge from which to draw. There is also a lack of information available to policy makers, investors, market managers and vendors with regard to steps that can be taken to improve their performance, growth, and economic contribution.

By better understanding the nature and performance of farmers' markets in Virginia, we can better help them overcome constraints and make their best contribution to the welfare and livelihoods of both consumers and Virginia's agricultural producers. This proposal provide baseline data on farmers' markets; and characterize markets Virginia's markets; identify key issues affecting their performance; and analyze their structure, scope and organization.

Providing Pollination Support to Local and Regional Growers

Honeybee colony numbers have steadily declined since 1945. Today there are less than half of the colonies that were managed by beekeepers in 1945. Losses have resulted from parasites, disease, declining number of beekeepers. The demand for pollinators has however increased. Beekeepers specializing in pollination services and even those who once focused exclusively on honey production are now moving vast quantities of hives across the country to meet fruit and nut grower demand for honeybee pollination. Recently a die off of honeybee hives called Colony Collapse Disorder has resulted in a further reduction of available colonies and placing our food supply at risk.

The proposed project will expand a small honey and pollination operation to provide a viable pollination alternative in the region. The project will demonstrate the economic viability of a pollination sideline operation on a local and regional level. Additionally, local and regional growers will directly benefit by having this alternative.

Organic Brambles for Fresh Local Markets

This project serves to demonstrate the viability of organic small fruit production in Virginia and provide a working model of diversification to other regional growers. Consumer interest has escalated in organically grown, locally raised fruit. Organic growers are frequently asked about availability of small fruit, demonstrating that an economic opportunity exists to cultivate this specialty crop. Availability of certified organic fruit is virtually nonexistent in central Virginia. The project seeks to prove the feasibility of producing specialty organic fruits.

Despite strong demand for organic brambles, locally produced crops and research to support their production are currently non existent. This lack of economic and production data is a significant barrier for producers who may otherwise convert to organic fruit production. This project will collaborate with specialists at Virginia Cooperative Extension to capture data, offer educational field days and publicize results. Our results on the feasibility and economic potential of producing organic fruit in Central Virginia will be shared with producers statewide.

Educating to Ensure a Future for Christmas Trees
Joe's Trees is seeking funds to help educate Virginia children about how Christmas trees are grown and cared for. Educating through school tours and using the Ag in the Classroom Standards of Learning correlated lesson plans will open the eyes of many children and educators. The National Christmas tree poll revealed that 2006 real tree sales are down 4% from last year and artificial tree sales are up 2%; and the purchase of no tree had increased by 2%.

The National Christmas Tree Association's consumer tracking polls confirm that providing learning opportunities to youth through farm tours and curriculum development help ensure a future market for Christmas trees as an agricultural crop. Since beginning the strategy of providing classroom lesson plans and encouraging farm tour visits by teachers and students over 8 years ago, the percentage of young adults who prefer a farm-grown Christmas tree has increased.

VA Christmas Tree Growers Association President Young was quoted at the Association's 2007 winter meeting "This is a golden opportunity for tree farms to make an impression on young kids and their families. These kids and young adults have the potential to boost the sales for real Christmas trees across the Commonwealth."

Cooled Produce Demonstration Program
The Southwest Virginia Farmers' Market will provide a facility and qualified personnel to implement a demonstration program that will test the feasibility and economic vitality of a cooler. The rapid cooling of fruit and vegetables removes field heat, significantly enhances freshness, and results in a longer shelf life. The net effect is increased returns for the grower, the ability to ship the cooled produce and the diversification of crops. A strong market potential currently exists in the region for these items. This machine will cool specialty crops, enabling farmers to diversify their crops and meet new market opportunities. There is a great demand by grocers, chain food stores, the military and others for specialty crops of fruits and vegetables. Without a means to remove heat, the farmers in southwest Virginia cannot meet these demands.

Potato Disease Advisory
Since 1995 potato growers on the Eastern Shore of Virginia have been utilizing temperature, relative humidity and leaf wetness readings provided by weather monitors placed in commercial potato growing regions. From this climatic information computer programs generate disease prediction models for both early and late blight. By using the disease prediction models, growers are able to spray when an outbreak was predicted.

On average, five fungicide applications on approximately 6,000 acres of potatoes on the Eastern Shore of Virginia were spared through the implementation of the Virginia Potato Disease Advisory. Reduced fungicide applications constituted a savings of $300,000 in unnecessary inputs for Eastern Shore potato producers.

Currently, the Eastern Shore has six weather stations, two of the sensors are damaged beyond repair and two more are experiencing problems and becoming unreliable. In order to continue

the successfulness of the Virginia Potato Disease Advisory, new environmental sensors are necessary. This is an opportune time to upgrade and replace the entire advisory network.

Increasing Farm income through Organic Specialty Crops

The project entitled “Increasing Farm Income through Organic Crops” was developed by Appalachian Sustainable Development. They are a community based organization focused on creating ecologically sustainable, locally-rooted economic opportunities in food and agriculture and forest and wood products. Their sustainable agriculture program employs an integrated, "field to table" strategy that links consumers with farmers, providing strong markets for organic produce and pasture-based meat, eggs and poultry.

The purpose of this project is to increase market opportunities and income for farmers transitioning from tobacco and other conventional crops to organic fruits and vegetables. ASD hopes to increase overall sales of Appalachian Harvest organic produce; increase the number of participating farmers and increase the markets for produce "seconds" by expanding our partnership with East Coast Fresh Cuts to produce and market fresh organic salsas and other specialty products.