

2003 New Crop Opportunities Research Report

Faculty, Staff, and Student Cooperators

About Our Cover

The New Crop Opportunities Center conducts research on a wide variety of horticultural and specialty grains crops. These crops include blackberries, vegetables, greenhouse crops, nursery crops, and specialty corn, wheat, and soybeans. The goal of this research is to help Kentucky farmers gain knowledge of diversification options that will enable them to be successful.

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Thanks to the farm crews of the various units and for general assistance from Extension personnel and College of Agriculture staff.

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Contents

New Crop Opportunities Center Overview—2003	6
Horticultural Crops—Blackberries	
Evaluation of Thornless Semi-Erect and Erect Blackberry Training Systems and Varieties for Kentucky—2001 and 2002	7
2002 Blackberry Cultivar Trial Results at the University of Kentucky Research and Education Center, Princeton	8
Blackberry Cultivar Evaluation—Quicksand	9
Extending Blackberry Fruit Shelf Life: Container Type and Modified Atmosphere Storage	12
Distribution of Blackberry Orange Rust and Rosette Diseases in Kentucky	13
Horticultural Crops—Greenhouse Crops	
Fluctuating Controlled Water Table Irrigation on Geraniums	15
Cut Roses for Christmas and Valentine's Day from Cuttings	18
2002 Garden Flower Trials: Results of Annual Flower Evaluations by Kentucky Master Gardeners	20
Perennial Garden Flower Trials, 1999-2002—University of Kentucky Horticulture Research Farm	21
Evaluate and Determine Fresh Yield of Approximately 15 Species and Cultivars of Lettuces, Greens, and Herbs for Seasonal Production in Kentucky Tobacco Greenhouses	23
Yield of Brassica 'Mei Qing Choi' and 'Tatsoi' in Hydroponic Greenhouse Production	24
Horticultural Crops—Nursery Crops	
<i>Aesculus parviflora</i> Propagation by Layering	26
Pruning Influence on Shoot Development with Container-Grown <i>Aesculus parviflora</i>	27
Evaluation of Cultural Practices for Container Production of Passion Flowers	28
Evaluation of Coneflower (<i>Echinacea</i>) Species for Nursery Production under Field Conditions	30
Irrigation and Pruning Influence Hydrangea Dried Cut Flower Production	31
Extended Vase Life for Cut Stems of <i>Hydrangea paniculata</i>	33
Kentucky Native Plant Evaluation	34
Horticultural Crops—Vegetables	
Bell and Specialty Pepper Evaluations for Bacterial Spot Resistance, Yield, and Quality	37
High Tunnel Production for Cold-Season Crops	43
Yield and Powdery Mildew Resistance of Fall-Harvested Summer Squash	45
The Potential of <i>Capsicum baccatum</i> as a New Crop for Kentucky Farmers	48
Marketing and Economics	
Estimated Returns for Wholesale Commercial Vegetable Production in Kentucky	51
Kentucky Blackberry and Blueberry Profitability Estimates	52
Kentucky Blueberry Markets Bursting—Consumer Survey Shows Continued Strong Demand	55
Highlights from the 2002/03 Kentucky Produce Marketing Practices Surveys	57
2002 Grape Profitability Estimates	60

Specialty Grains—Corn

Evaluation of High-Value Traits for Corn in Kentucky	63
Insect Pest Management in High-Oil Corn	65

Specialty Grains—Soybeans

Breeding Triple-Null Lipoxygenase Soybean Cultivars	66
Testing Novel Soybean Varieties	66
Optimum Seeding Rate for Novel Soybean Production	69
The Effects of Changes in Seed Protein Concentration on Seed Growth Characteristics of Soybean	71

Specialty Grains—Wheat

Development of White Wheat Cultivars from a Red Wheat Breeding Program	72
Understanding the Roles of Soil and Fertilizer Nitrogen Management on Grain Protein Levels in Soft Winter Wheats	73

Specialty Grains—Drying, Storage, and Germination

Drying, Storage, and Germination Characteristics of Selected Specialty Grains	76
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Specialty Grains—Economics

Analyzing the Profit and Risk Potential of New Crop Varieties	81
Challenges for Marketing New Crops in Kentucky: Edamame	82

New Crop Opportunities Center Overview—2003

Dewayne Ingram, Director, Dave Van Sanford, Co-Director, and Christy Cassidy, Coordinator, New Crop Opportunities Center

The New Crop Opportunities Center was established in July of 2000 to provide farmers with production and marketing information on new crops and value-added versions of current crops. The Center is funded by a special grant from the USDA. The Center supports research on specialty crops, offers electronic and printed educational materials, and provides on-farm demonstrations of selected crops.

Twenty projects involving horticultural and specialty grains crops were initiated through the first three phases of New Crop Opportunities Center funding. Ten additional research projects began in 2003. A Web site <www.uky.edu/ag/newcrops> was established in October of 2000 to make information about the Center's research, as well as information on a variety of additional crops, available to Extension agents and farmers. The Web site includes links to aids to help farmers decide if a particular crop is right for them as well as crop profiles to give farmers a quick look at production factors and economic considerations associated with a variety of crops. These profiles are a starting point to help farmers determine which crops might warrant further investigation to see if they work for their enterprises. Profiles are currently available on more than 50 crops. Additional crops are being added monthly.

The New Crop Opportunities Center builds on successful multi-disciplinary programs and provides resources to intensify the research and Extension efforts for a more rapid response to critical state needs and opportunities. The integrated research and Extension components of this proposal include faculty, staff, and graduate student activities at the Horticulture Research Farm and Spindletop Farm in Lexington, the Robinson Experiment Station in Quicksand, and the Research and Education Center in Princeton.

Since it began in 2000, New Crops research has involved 60 faculty and staff from six departments in the College of Agriculture (Agronomy, Horticulture, Agricultural Economics, Entomology, Plant Pathology, and Biosystems and Agricultural Engineering), as well county Extension agents and graduate students.

Justification

It is well documented that many of Kentucky's family farms are highly dependent on tobacco as a primary source of income. But Kentucky's tobacco production has fallen by slightly more than 50% in the past five years, and interest in alternative crops has risen dramatically with increased threats to the profitability of tobacco. Each time these threats have occurred, a number of farms have successfully initiated commercial horticulture enterprises. Other farmers are seeing the potential success of horticultural crops, but most lack the technical knowledge and management skills for immediate success with these production/marketing systems.

Market prices for corn, soybeans, and wheat, which together account for nearly all of Kentucky's grain crop production area, have been relatively low in recent growing seasons. While some growers have been able to devise new combinations of inputs to reduce their production costs without incurring yield penalties, most growers are convinced that the best way to improve the profitability of their operations is to secure higher market prices for their products. The concept of "high-value" commodities has been invoked in other Kentucky industries as a means by which more of the additional product value generated through post-production processing can be captured by the state. In the case of specialty grains, the additional value is due to genetic modifications made in the crop variety prior to its planting.

Such modifications have resulted in an impressive array of specialty types of the three major grain crops. There are numerous specialty types of soybeans. Corn and wheat have somewhat fewer available specialty types, but both have important newly emerging materials.

With so many specialty grain types being developed, it is somewhat perplexing to producers to determine which may be bona fide opportunities for their operations. Information is needed on both yields of the specialty types and the stability of the particular quality factors of interest. A goal of this project is to provide accurate information on both the yields and selected quality characteristics of each specialty grain type tested, thus giving producers a solid information base from which to decide which specialty grain types to investigate under their own unique conditions.

About This Report

The 2003 New Crop Opportunities Research Report includes results from 38 research projects that have been conducted on horticultural and specialty grains crops. The report includes the following sections:

- blackberries
- vegetables
- greenhouse crops
- nursery crops
- economic and marketing information on horticultural crops
- specialty corn
- specialty soybeans
- soft white winter wheat
- drying/storage/germination of specialty grains
- profit and risk potential of specialty grains.

Some of these projects have been completed; others are ongoing. Results of the ongoing projects, including those that began in 2003, can be accessed as they become available at <www.uky.edu/ag/newcrops/current.html>.