Welcome to the Missouri Blueberry School
Outline

- Blueberries – past and present
- Missouri’s current situation
- The future
- The Michigan trip
- The Missouri Blueberry School
Blueberries

The “Healthy” Fruit
History of Blueberries

• Indigenous to North America
• Called “star berries” by native Americans and utilized for food and medicinal uses
Highbush Blueberries
“the beginnings”

- Selected “wild” blueberries growing between cranberry bogs near Whitesbog, NJ
- Dr. Fredrick Coville (USDA) started research on blueberries in 1910
- Elizabeth White collected plants for early research experiments
- Dr. Coville developed first 15 commercial varieties of blueberries
Highbush Blueberry Development

- 1916 – Coville/White produced the first cultivated blueberry
- At its production peak, Whitesbog had 90 acres under cultivation
- Dr. George Darrow (1937) took over USDA blueberry breeding program
- From 1946 to 1962, Dr. Darrow provided seedling plants to cooperators in 13 states

(U of Vermont Extension)
Major Blueberries “Vaccinium” Grown in US

- Low Bush – *V. augustifolium*
- Northern Highbush – *V. corymbosum*
- Rabbiteye – *V. ashei*
- Southern Highbush – *V. darrowii*
Major Blueberry Producing States

- Michigan
- New Jersey
- North Carolina
- Oregon
- Georgia
- Washington

- estimated Missouri acreage – 200 acres

(2009 USDA)
Missouri Blueberry History

• 1975 – First Blueberry Research Projects
  – Mountain Grove Fruit Experiment Station
  – Springfield - MSU Darr Agricultural Center

• Early Growers
  – Roger and Jan Hackard
  – Art and Juanita Steinbaugh
  – Tom and Penny Willis
Missouri Blueberry Researchers

- Dr. James N. Moore and students (Arkansas)
- Dr. Gerald (Jerry) Brown
- Dr. Ben Fuqua
- Dr. Milwant Sandhu
- Dr. Peter Anderson
- Dr. Martin Kaps
- Marilyn Odneal
- Pat Byers
Blueberry Council of Missouri formed in 1987

- “Primary objective: the development and promotion of high quality Missouri blueberries”
- Identify locations of Missouri blueberry growers
- Promote Missouri grown blueberries
- Demonstrate multi-uses of ripe blueberries
- Support educational programs
- Assist with blueberry research projects
Challenges for Missouri Growers

- Soil conditions; pH, depth, drainage
- Proper irrigation of plants
- Bird, bird, and more birds
- Weed control
- Disease pressures
- Insects

- NO PROBLEM: Selling and eating blueberries
Missouri’s Current Situation

- Missouri acreage – 200+ acres
- Most of the production is from plantings that are less than 10 acres in size
- Most of production is direct marketed
- Demand is strong for locally produced blueberries
- National consumption of blueberries continues to increase
- Do we have enough production to meet present and future demand?
Missouri’s Future

• Do Missouri blueberry growers have advantages? You bet!
  – Central location
  – Adequate water resources
  – Suitable sites, with modification in some cases
  – Innovative farmers
  – Local and regional demand for blueberries
Do Missouri blueberry growers have challenges? You bet!

- Soils issues
  - High pH: 5.5-7.0
  - Low organic matter: <3%
  - High calcium content
  - Poor drainage, impervious soil layers
- Lack of ideally suited cultivars
- Climate
Missouri’s Future

- The supply of Missouri blueberries is insufficient for demand
  - US per capita consumption of blueberries is estimated at 26.2 ounces (2008, USHBC)
  - If we focus on the estimated per capita fresh consumption of 12.3 ounces, we would need 211,540 lbs of fresh fruit, or around 26 acres of mature bushes to meet the needs of Greene County (pop 275,174)
Missouri’s Future

• The national scene will influence Missouri
  – Blueberry per capita consumption has room to grow
  – Underdeveloped domestic markets
  – Limited volume currently allocated to offshore markets
  – Blueberries continue as key ingredient in new product development (> 1200 new products in 2010)
  – Blueberry “Health Halo” remains a purchase driver
Missouri’s Future

• US Highbush Blueberry Council initiatives:
  – Expand Health Research and Move to Human Clinical Trials
  – Reach Out to a Larger Audience, Explore New Markets and Uses
  – Maintain Consumer Awareness of Blueberries and Health Given More Aggressive Claims By Other Fruit and Vegetable Groups
  – Expand Current Promotional Activities and Broaden Audience Reach Through Advertising Programs
  – Support Good Management and Food Safety Practices

• [http://www.blueberry.org/](http://www.blueberry.org/) for more information
The Michigan Trip

- North American Blueberry Research and Extension Workers meeting
- July 25-27, 2010
- Kalamazoo, MI
Blueberry Harvest

Rotary harvester

Air harvester
Blueberry Packing

Fruit dumping
Removal of debris

Removal of stems
And debris
The Missouri Blueberry School

- Collaborative effort
  - University of Missouri
  - Missouri State University
  - Other collaborators

- Intensive blueberry school
- Seasonal topical workshops
- Blueberry production curriculum
The Missouri Blueberry School

- 2011 Missouri Blueberry School organizing committee
  - Ben Fuqua
  - Martin Kaps
  - Ed Browning
  - Patrick Byers
  - Gordon Carriker

- Plans for 2012
  - Growers workshops
  - 2012 Missouri Blueberry School
  - Blueberry production curriculum
  - Pursuit of funding
The Missouri Blueberry School

- Thanks to our supporters:
  - MU Missouri Beginning Farmers Program
  - Missouri Blueberry Council
  - Sunshine Valley Farm
  - Persimmon Hill Farm
  - Highland Blueberry Farm
  - Missouri State University William H. Darr School of Agriculture
Your Input is Appreciated

• Please fill out the survey and evaluation
• Contact us with input
Today’s Program

- Blueberry Planting Establishment
  - Bernadine Strik
- Blueberry Cultivars
  - Martin Kaps
- lunch
- Cash Flow Realities with Blueberries
  - Ed Browning
- Blueberry Nutrition Management
  - Bernadine Strik
- Blueberry Irrigation
  - David Bryla
- Missouri Experiences
  - Bob Hershey, Robert Carter
- supper (on own)
- Reception, round table discussions, Missouri Blueberry Council meeting
Tomorrow’s Program

- Tour buses departs from Darr Agricultural Center
- Sunshine Valley Farm tour, demonstration of blueberry irrigation design
- Persimmon Hill Berry Farm tour, discussion of blueberry disease issues
- Return to Darr Agricultural Center
Any Questions?