Eastern Broccoli

Powell Smith
Clemson Extension Service
Lexington, SC

Thanks to T. Bjorkman, Cornell Univ. for some slides
Goal

• Establish Eastern broccoli production that supplies quality product year-round.

• Funding:
  – USDA Specialty Crops Research Initiative
    • A new program begun at the request of industry
  – Industry partners
  – Universities
Crops & Markets
Project looks to expand East Coast-grown broccoli

Published on 11/29/2010 03:50PM  By Doug Ohlmeier
Average Rating: ★★★★★ (0)

A movement has begun to increase broccoli’s presence on the East Coast.

Through a public-private partnership, fueled in part by a $3.2 million U.S. Department of Agriculture specialty crop block grant, researchers at Cornell University, Ithaca, N.Y., are studying ways to develop varieties, expand grower production and build distribution systems for regional production.

Hoping to take advantage of local/regional produce demand, major seed companies, such as Syngenta and Monsanto, grower-shippers and regional supermarket chains are collaborating with a team of USDA/university researchers on East Coast broccoli.

Thomas Bjorkman, associate professor of vegetable crop physiology in the horticulture department at Cornell's Geneva, N.Y., campus, said specific varieties are needed to help growers with short seasonal windows to offer a more consistent supply.
Opportunity

- Broccoli consumption continues to increase
Broccoli now

1,400
107,000
12,000
3,500?
4,000?

Clemson Extension Service
Opportunity for East

- High fuel prices
- Demand for local product
- Demand for sustainably produced product
  - “Shrink the food miles”
Obstacles to Eastern Broccoli

• Unsuitable varieties
• Gaps in production
• Incomplete distribution network
Breakthrough

Conventional

Genetics for the East

Clemson Extension Service
Year round production?

Production area:
- ME
- NY
- TN, KY & VA
- SC & NC
- GA & FL

Harvest season:
- Dec
- Jan
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec

Clemson Extension Service
Year round production?

- ME
- NY
- TN, KY & VA
- SC & NC
- GA & FL

Potential increase

Current

Production area

Dec Jan Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Harvest season

Clemson Extension Service
Components

- Breeding
- Regional tests
- Release and sell varieties
- Establish grower base
- Distribution network
- Consumer acceptance
Breeding

- **Public**
  - USDA: Mark Farnham
  - Cornell: Phillip Griffiths
  - Oregon: Jim Myers

- **Private**
  - Bejo: Mary Van Ryn
  - Seminis: Gene Mero
  - Syngenta: John Hewitt
  - Johnnys: Steve Bellavia
## Regional Testing

- **New genetics**
- **Wide adaptability**
- **Nutritional Value**

### Sites
- Maine
- New York
- Virginia (mountains)
- North Carolina (mountains)
- South Carolina (coastal plain)
- Georgia (south central)
- Florida (northeast)

*Clemson Extension Service*
Where will broccoli be grown?

2017 Broccoli?

- California: 107,000
- Washington: 1,400
- Other states: 12,000

- 25,000 ??? (estimated or missing data)

Clemson Extension Service
Grower base

• New production recommendations
  ▪ Adoption of new varieties
• Local producer networks where needed
  ▪ Joint coverage of market window
  ▪ Post-harvest
  ▪ Coordinated scale up
• Distributor relations
• Economic analysis

Clemson: Powell Smith
NCSU: Jeanine Davis
Virginia Tech: Wythe Morris
Cornell: T. Björkman
Christy Hoepting
Maine: Mark Hutton

Clemson Extension Service
Distribution network

- Efficiencies
- Iceless?
- RPC
- Value of “Locally grown”
- Value of sustainability

- Cabbage Inc.
- L&M Co’s
- Ocean Mist
- WP Rawl
Consumer acceptance

- Appearance constraints
- Tenderness & sweetness of local
- Interest in ‘food miles’
- Environmental concerns

Wegmans
Hannaford Bros.
Other regional grocers
Quality year round