

# ***Forage Brassica Field Day***

September 18 2009

Gary and Cheryl Crowe Farm

# ***Acknowledgements***

- NE Sustainable Agriculture Research and Education (SARE)
- GLCI, Organic Dairy Initiative
- NOFA
- Cornell Cooperative Extension

# ***Forage Brassica Types***

- Turnips
  - Leaf-Type
  - Bulb-Type
- Swede/Rutabaga
- Radish
- Rape
- Kale
- \*\*Chicory

# ***Brassica Advantages***

- Palatable
- High digestible energy, low fiber
- Leaves: High Protein and Energy
- Bulbs: High Energy
- Low establishment costs compared to some other annuals

# ***Brassica Disadvantages***

- High costs compared to perennials
- Feeding concerns
- Possible soil erosion

# ***Research Plots***

- Four sites, five trials
- Three variety trials, two no-till establishment trials

# ***No-Till Trials***

- Extending pilot research by Fay Benson et al. in 2007-2008
- No-till planting into sod, with or without vinegar to suppress sod growth
- Results: No-Till into sod was uniformly unsuccessful. No-till into previous pea cover crop successful.

# ***Variety Trials***

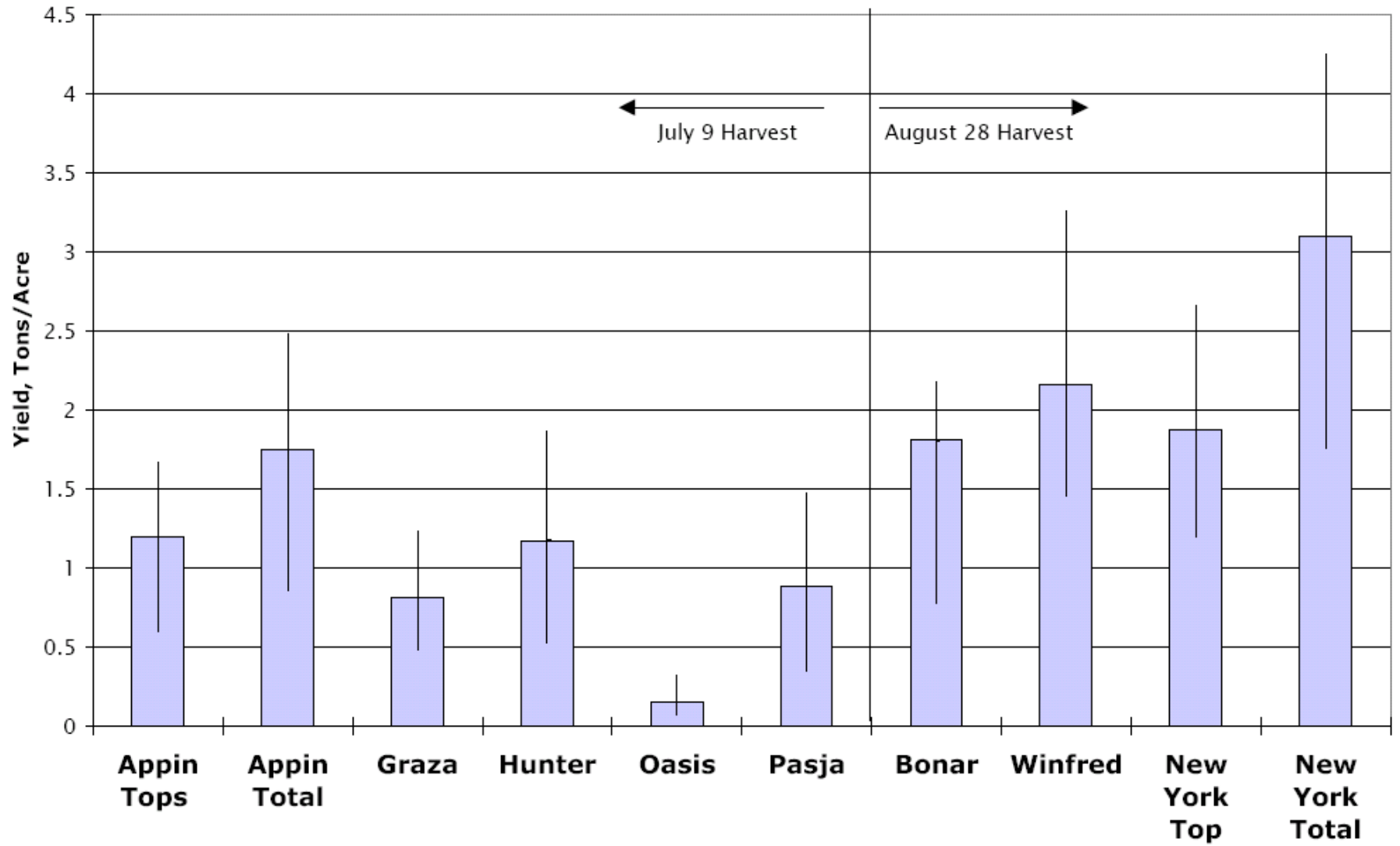
- 10 varieties from Ampac and PGG
  - 4 Turnip
  - 2 Rape
  - 1 each Radish, Swede, Kale, Chicory
- 3 trials
  - ELF Spring Planting, May 15
  - ELF Summer Planting, August 11
  - Crowe Farm Summer Planting, August 13



# ***Spring Planting Results***

- Very successful for one grazing.
- Not clear if multiple grazings were successful -may have been overgrazed on first grazing.

### Yield of First Harvest, May Planting



# ***Economics: Conventional***

- No-Till Establishment Costs:
  - \$60/Acre
- FEEDVAL Conventional Crop Value:
  - Assume Corn @ 3.36/bu
  - Assume SBM @ 298/Ton
  - Assume 2 ton/A tops, 1 ton/A bulb
  - \$495/Acre for New York Turnip
- Compare to \$495/A Corn Silage

# ***Economics: Organic***

## Plow-Till Establishment Costs:

- \$80-\$105/Acre
- FEEDVAL Organic Crop Value:
  - Assume Corn @ \$12.04/bu
  - Assume SBM @ \$1093/ton
  - Assume 2 ton/A tops, 1 ton/A bulb
  - \$1735/Acre for New York Turnip
- Compare to \$1800/A Corn Silage

# ***Establishment Recommendations***

- Drill vs. broadcast
- Tilled vs. No-Till
- Planting Date:
  - Spring Planting: Early May was good
  - Summer Planting: mid-August probably too late
- Interseed with clover/grass/chicory

# ***Future Research?***

- Compare with other crops
  - Sugarbeets/Mangels
  - Summer Annual Grasses
  - Perennial Pasture
- Optimize Planting and Harvest Dates
- Multiple grazing potential