

Potential for Growing Processing Onion in Wisconsin

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Wisconsin Vegetable Production

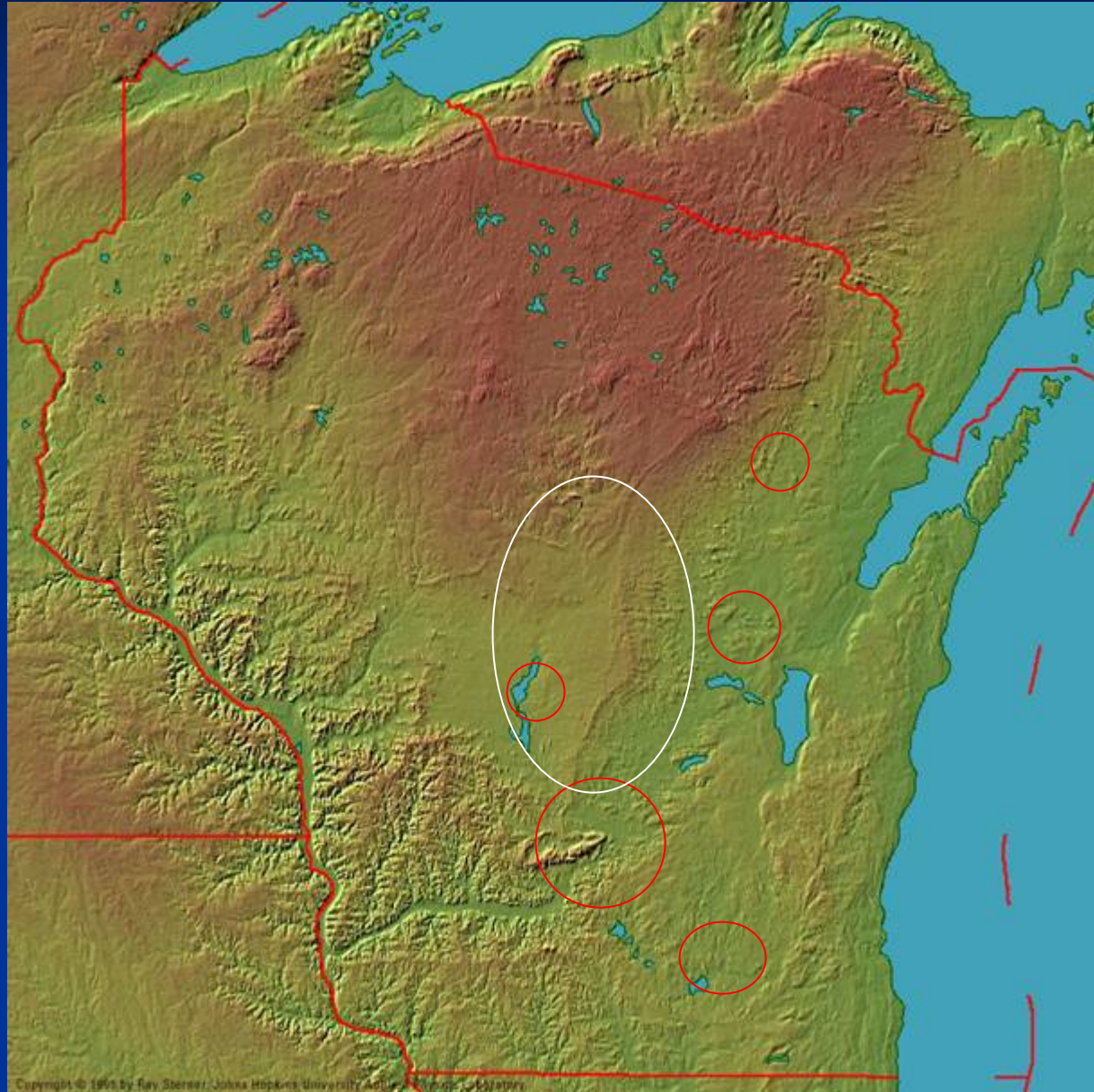
- 75,000 a of potato
 - 3rd in total production
 - Fresh market and processed crop
- 80,000 a of snap bean
 - 1st nationally in production and acreage
- 100,000 a of sweet corn
- 35,000 a of green peas
- Cucumbers, cabbage, carrots, and onion

Wisconsin Onion Production

- 2,500 a of onion
 - All for fresh market
 - 800 cwt/acre
 - White or red storage onions
 - 2.5 to 3” diameter
 - Muck crop growers association
 - 10-15 years ago included more than 50 farms
 - Muck acreage is declining
 - DNR is buying land and taking it out of production
 - Loss of muck crops – lettuce, celery
 - Wisconsin Potato and Vegetable Growers Association
 - Interest in onion production in other areas

Onion Production Regions

- Muck soils
 - Low land areas
 - Near major waterways
 - High organic matter soil
 - Coarse structure
- Irrigated sands
 - Major vegetable production area
 - Looking for alternative crops



Onion Processing in WI

- Several million lbs of onion processed per month in WI
 - Onion rings
 - Soups, frozen mixed vegetables, and other products
- Fort Atkinson, Rice Lake – rings
- Madison, Beaver Dam – other products

Raw Product Source

Supply from the West (Treasure Valley
-1800 mi from WI



Can WI grow Onion for Processing

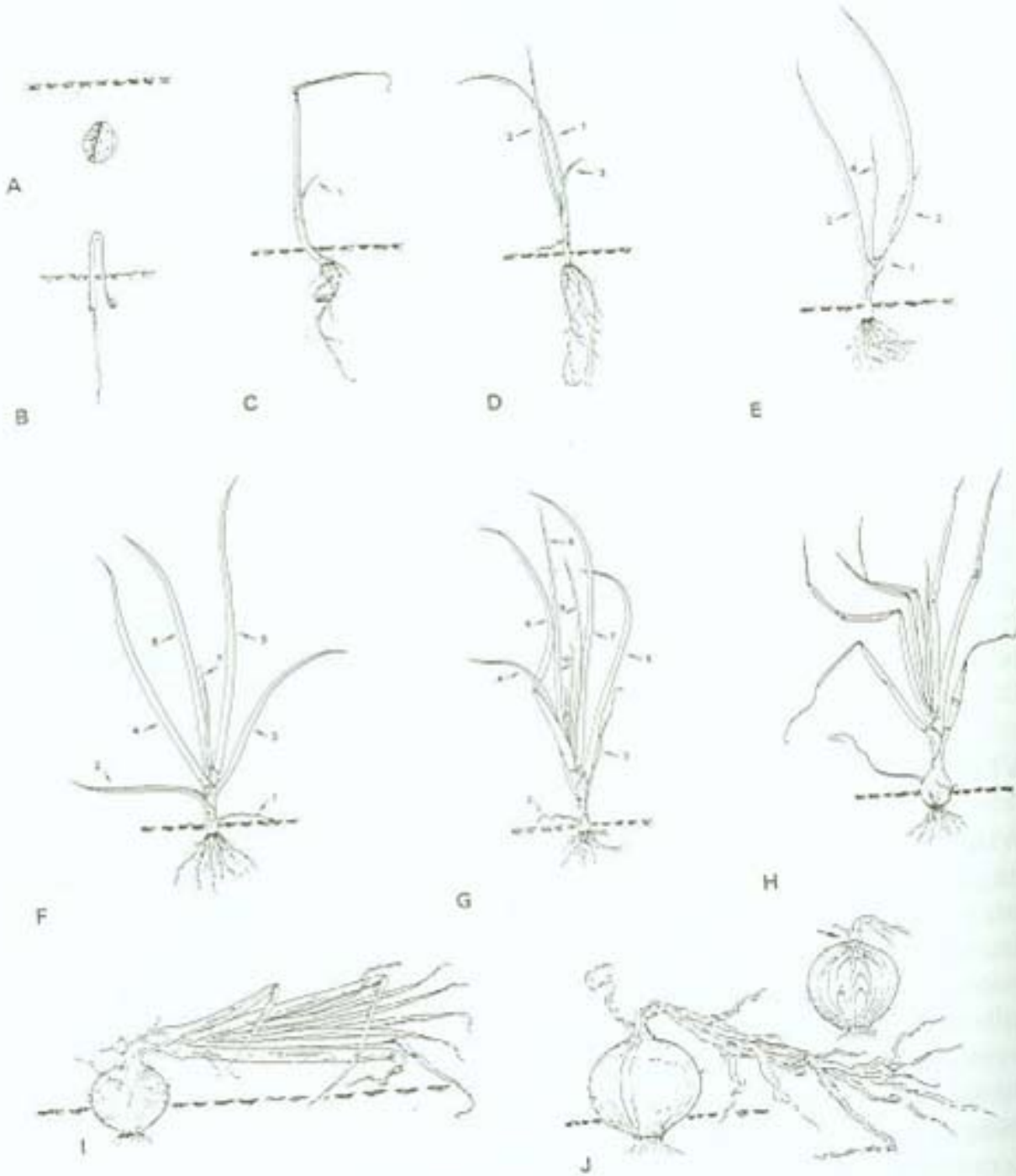
- Need to meet consistent quality parameters
 - Size – minimum 3.5” diameter
 - Rings size
 - Single centers
 - Minimal thickness
 - Storability
 - Flavor
 - Peel
- Cost of production
 - Shorter growing season than out West
 - Must be able to produce from seed
 - Market for large fresh market onion
 - Supply vs. Demand

Layout for Today

- Onion production successes in WI
- Production concerns needing research

Growth of Onion

- Vegetative growth
 - Harvest
- Slow to emerge and establish



Onion Grower Trials

- Onions on sand
 - Miller Farms and Ship Rock Farms
 - Heath Farms
- Onions on Muck
 - Dean Kincaid Inc.
 - Gumz Muck Farms
 - Leach Farms

Onion on Sand from Seed - 2004



Onion on Sand from Seed - 2004



Onion on Muck from Transplants







Success in Growing Onion for Processing

- 2 growers grew onion from transplants
 - Made minimum size requirement
 - Met McCain quality standards
 - Cost prohibitive?
- 4 growers grew onion from seed
 - None met size requirements
 - Could ship if sorted
 - 25-35% graded off
 - Best field hailed out
 - Hail damage leads to onion rot

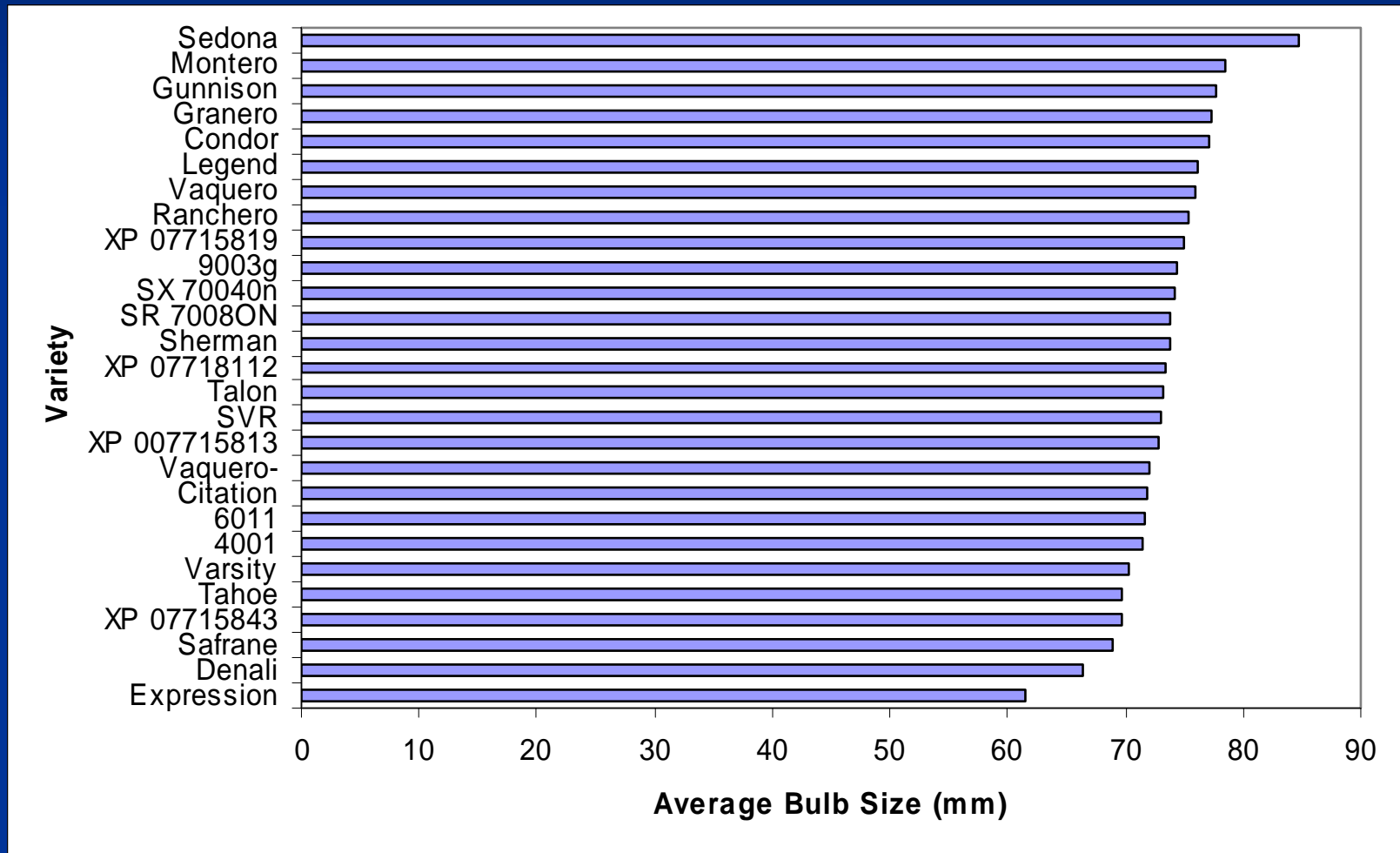
Effects of Leaf Damage on Onion Quality



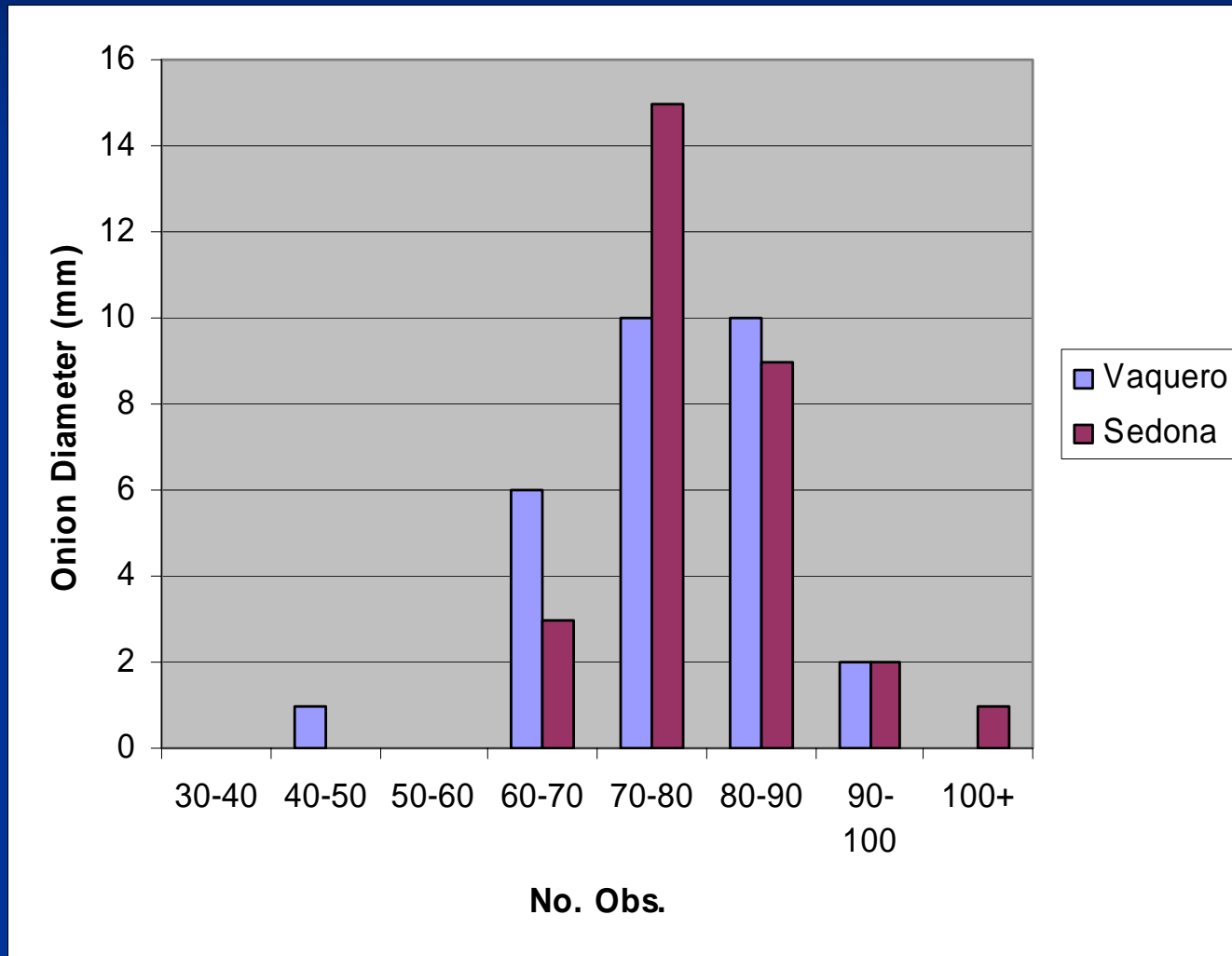
Research Issues

- Variety identification and selection
 - Hybrids of sweet Spanish with storage onion
- Cultural Management
 - Transplants vs. set vs. seed
 - Planting population
 - Ground cover or cover cropping
 - Irrigation

Bulb Diameter x Variety



Size Distribution of Select Cultivars



Other Research Issues

■ Fertility

- Flavor of rings
- Early fertility to promote good crop growth

■ Storage management

- Conditioning the crop in storage
- Harvesting the crop
 - Rolling, lifting, topping, other?
- Late summer and fall weather
 - Cool and wet
 - 2 to 3" rains can cause harvest and storage problems

Resources

- Grant from the Dept. of Ag
 - 25 K per year for 2 years
- McCain Foods USA
- WI muck growers association
- WI Onion growers

Thanks

