

# Potential for Saskatoon and Goji Berry Production in the Great Lakes Region

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# Saskatoons

*Amelanchier alnifolia*

**Native range** – South Dakota to Alaska.

About two dozen related *Amelanchier* species.

**Common names:** Juneberry, Serviceberry



# Canada

- About **4,000** acres and **400** growers, mostly Alberta, Saskatchewan, and Manitoba.
- Estimated crop value in 2008: \$20 million.
- Products: jam/jelly, pie, wine, fresh fruit, ice cream (and topping), candy



# Saskatoon Planting & Production

- Sandy soils best but grow on most soils if drainage is adequate. pH 6.0 – 7.5.
- Bloom April-May, pick June-July.
- Begin bearing three to four years after planting.
- Yields of 4,000 lbs/acre are common with irrigation (@ 1,000 bushes/acre).
- Plantings should be productive for 50+ years.

# Plant Material

- **Seedlings:**
  - Genetic diversity; variation in plant growth and fruit production/quality.
- **Tissue culture - clonal**
  - Uniform quality and production
  - Produce fruit a year earlier than seedling and yields will be higher.

# Growing Techniques

- **Spacing**
  - **U-Pick, fresh market**
    - 3' between bushes, 12-16' row spacing (950/acre)
  - **Mechanical Harvesting**
    - 3' between bushes, 20' row spacing (725/acre)
- **Windbreaks** often improve establishment



# Varieties

- Smokey
- Martin
- Northline
- JB-30
- Honeywood
- Thiessen
- Parkhill
- Lee 8



# 'Smokey'



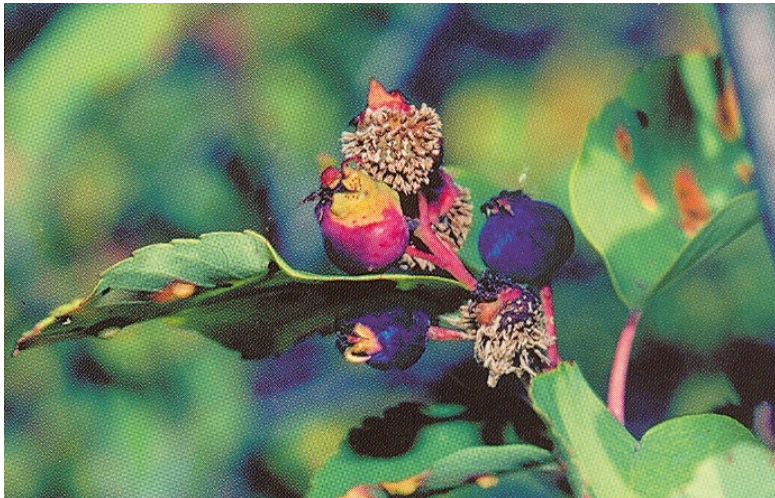


Joanna pull-behind harvester used in central Canada. Requires row spacing of 18 ft or more.



# Pests, Diseases

Entomosporium



Juniper rust

Woolly elm aphid



# Michigan Update

- 30,000 plants in ground in Northern Lower Peninsula. 10 growers with > 1,000 plants in 2009
- Another 20,000 to be planted in 2011, bringing total to about 60 acres.
- MSUE workshops
- Variety trials:
  - NW Station
  - MSU campus



# New crop – plenty of questions

- Market opportunities?
- Marketing coop?
- Affordable sources of plant material?
- Pesticide registrations?
- Varieties?



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# Wolfberry or Goji

*Lycium barbarum*



# Background

Gathered in China for centuries, but formal breeding is very recent. Primarily *Lycium barbarum*, but *Lycium chinensis* and 5 other species have been used.



Now over 200,000 acres in China. Most in Ningxia Province.

# Ningxia Province, China

Long-lived perennial

Similar to blueberry spacing

Soil texture varies

Hand picked June – Oct.

Usually single stem

Ningxia #1: 80% of acres

Alkaline pH best

Max yield 7,000 lb/acre



# Goji Products

## Drinks



## Snacks



## Cosmetics





# Crimson Star (Ningxia #1)

One Green World Nursery

Molalla, OR

<http://www.onegreenworld.com/>



# Wolfberry Agrodevco, Prince Albert, Saskatchewan

Owner: Terry Switenky

<http://www.wolfberryagrodevco.org/>

Mary Szucsko, Langton ONT

Representative for Ontario and Eastern Canada and U.S.



# Seedlings – general observations

- Extremely variable in habit, productivity, and fruit quality.
- Seedlings from imported commercial fruit tend to have low vigor



Goji seedling trial,  
Benton Harbor, MI  
(R. Goldy)

# Questions - Issues

Clonal material vs seedlings?

Fruit quality in humid regions?

Machine harvesting?



