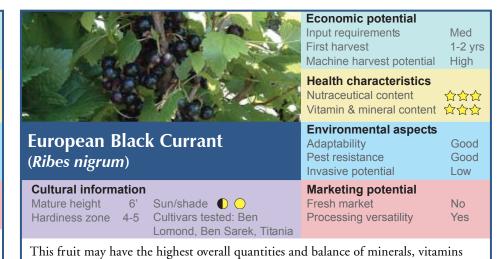
## Uncommon fruit crops with sustainability potential

Dale Secher, Carandale Farm, and University of Wisconsin-Madison Center for Integrated Agricultural Systems

Carandale Farm has been evaluating 42 unusual fruits since 2003 for environmental, social and economic sustainability. The goal is to find fruits that can be grown easily, without a lot of labor or chemicals. The fruit should be nutrient rich and appealing to consumers. The fruits must provide economic viability for the farm, which can lead to local job opportunities and feed into a cycle of regional development. Carandale owners Dale and Cindy Secher are developing a "short list" of unusual fruits that farmers can grow to develop local markets and local food systems. The Sechers score each fruit on several attributes, shown below starting with the highest ranking fruit. So far, eight fruit crops have rated high in the trials.

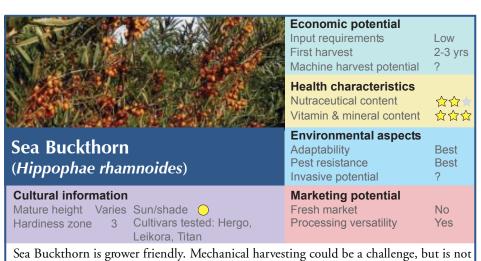


Aronia is tops for commercial production potential. It is grower friendly with processing versatility and outstanding health benefits. It has good regional adaptability and very good pest resistance. The fruit is firm and has a long hang time after maturity, allowing for a long harvest season.



and phytochemicals of any known fruit. An IPM program with minimal pesticides can

control diseases. Research and selection will result in pest resistant cultivars.

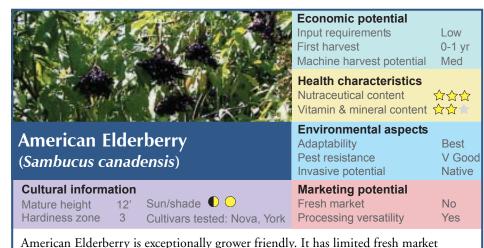


insurmountable. One non-producing male pollinator is required for each 8 high-

yielding female plants. This cold-hardy plant tolerates drought, poor soils and even

saline conditions. Sea Buckthorn is a nitrogen-fixing shrub with no significant pest

issues. Processing potential and health benefits are its keys to marketability.



appeal, but good processing potential. It has excellent health benefits and it is popular

as a cold and flu remedy. American Elderberries appear quite pest resistant and could

be grown without pesticides with little risk. Bird netting is a must for small plantings.

This overlooked fruit has great potential, especially in southern Wisconsin.



### Saskatoon (Amelanchier alnifolia)

#### **Cultural information**

Mature height Varies Sun/shade 

Cultivars tested: Smokey,
Pembine, Parkhill, Honeywood

# Economic potentialInput requirementsMedFirst harvest3+ yrsMachine harvest potentialHigh

### **Health characteristics**

Nutraceutical content ☆☆☆
Vitamin & mineral content ☆☆

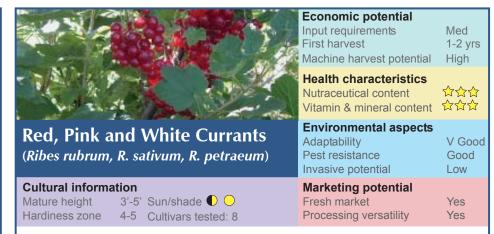
### **Environmental aspects**

Adaptability Good
Pest resistance Good
Invasive potential Native

### **Marketing potential**

Fresh market Yes Processing versatility Yes

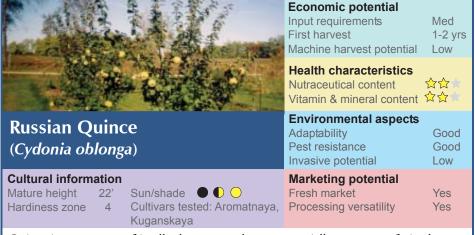
Saskatoon is a North American native also known as Juneberry and Serviceberry. Adaptability appears to be cultivar specific, and pest susceptibility is similar to other pome fruits. Nutraceutical content is similar to blueberries. Pest intervention may be required on a commercial scale, although continued breeding and cullivar selection will improve grower friendliness. Saskatoon contains more protein, fat and fiber than most other fruits. Current processing demand is very high.



While these currants cannot compete with black currants for nutraceutical value, they do rank high compared to other commonly grown fruits. They are the most grower friendly of the Ribes group, and less tart cultivars have fresh market appeal. They are well adapted to this region, are not an invasive threat and pest issues (leaf spot, anthracnose and mildew) can be addressed by using IPM and/or organic practices. Red currants have a clean, crisp taste that adds coloring and tartness.



Gooseberries are only moderately grower friendly, but are well adapted to Wisconsin. Their unique flavor is good for both fresh eating and processing. While gooseberries have greater disease issues in the test plot than the other Ribes, this can be addressed by proper cultivar selection and continued plant breeding. American gooseberry mildew is the most serious disease and breeding programs have concentrated on developing resistant cultivars. Leaf spot and white pine blister rust are also problems. Gooseberries will require close scouting and occasional disease intervention, either organically or otherwise.



Quince is more grower friendly than most other commercially grown tree fruits, but our test varieties are susceptible to fire blight. It is not an invasive threat, seems to have good regional adaptability, blooms late to avoid spring freezes and has demonstrated pest resistance. Quince have fewer carbohydrates and higher nutritional value than apples and are used to add flavor to applesauce. The fruits are dense, firm and aromatic with some fresh market appeal. Fruits are large (nearly one pound each) and bruise resistant. Freezing temperatures may improve texture and long-term cold storage may be possible.