

Red Beet Varieties for Storage in Lower Mainland BC

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Commonly used red beet varieties such as **Detroit Supreme**, **Red Ace** and **Red Atlas** are solid performers for Fraser Valley growers. Recent variety trial work, carried out over the 2014 and 2015 field seasons, has focused on evaluating other commercially available varieties for storability and comparison against the industry standards. Specifically, red beet varieties were evaluated in terms of:

- **Disease development in the field – with a focus on foliar leaf spots such as *Cercospora* leaf spot and powdery mildew**
- **Appearance of roots – at harvest**
- **Disease development on roots after 4 and 6 months of storage – focusing on the development of storage rot symptoms such as blackening of internal tissue and growth of mycelium (white or grey) on surface of root**

The variety trials were conducted under Fraser Valley conditions in grower fields located in Abbotsford, Delta and Cloverdale. Plots were maintained using standard grower practices for beets. From these variety trials, it was observed that two varieties – **Eagle** and **Merlin** - performed well in the field with overall lower levels of foliar symptoms of disease relative to other varieties tested (Figure 1).



Figure 1: Merlin (left) and Eagle (right) foliage. (Photos: Renee Prasad, University of the Fraser Valley)

Note: Seeds were planted in June 2015 and photos were taken just prior to harvest in September 2015.

Additionally, it was found that **Merlin** and **Eagle** had lower levels of storage rot after four months of storage than the other varieties tested (Figure 2).

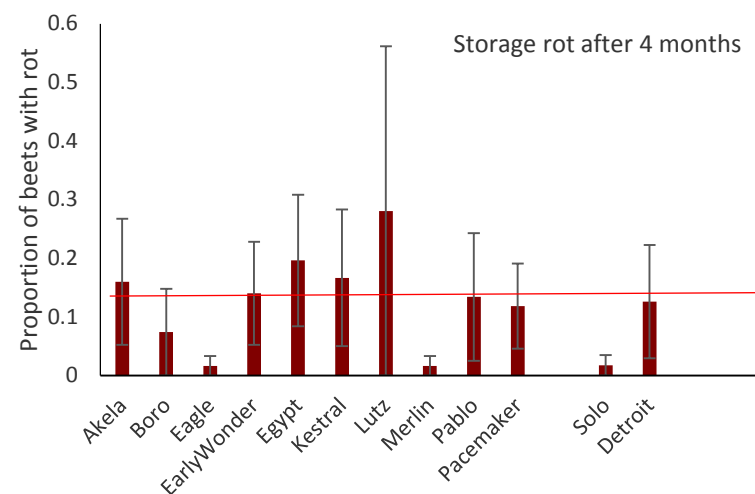


Figure 2: Amount of storage rot on red beet varieties after 4 months of storage (0°C and 85% RH).

Note: The red line indicates the average amount of storage rot observed across all varieties.

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After 6-months of storage, levels of rot increased for all varieties, but remained lowest on **Merlin** (Figure 3). Levels of rot for **Eagle** and two other varieties **Egypt** and **Pacemaker** were lower than the overall average.

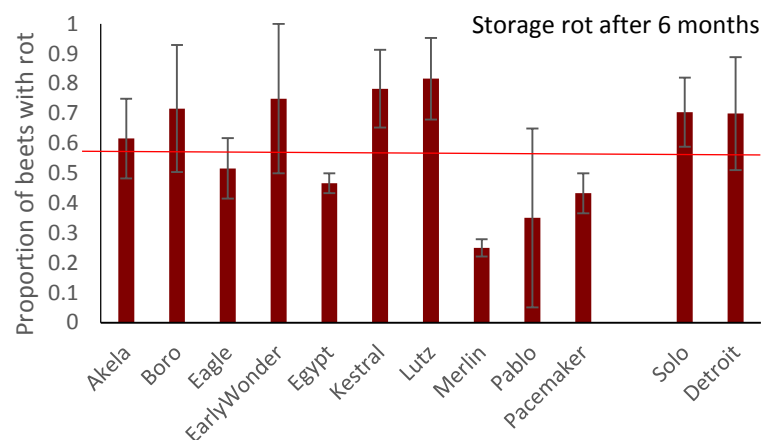


Figure 3: Amount of storage rot on red beet varieties after 6 months of storage (0°C and 85% RH).

Note: The red line indicates the average amount of storage rot observed across all varieties.

Merlin, Eagle, Egypt and Pacemaker are commercially available and have uniform round roots (Figure 4).



Figure 4: Merlin (left) and Eagle (right) roots (Photos: Sakata Seed America Inc.).

For growers anticipating a long storage season for their beets, the varieties highlighted in this fact sheet may provide alternative choices to the current industry standards. **Merlin**, in particular, may be a good choice for extended storage of up to 6 months (*NB*: performance may vary depending on storage conditions and disease pressure in storage).

Growers are encouraged to speak with their seed suppliers on these and other beet varieties in terms of their performance in storage.

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