

Planting with rooted cuttings

Cranberries are harvested in water because

it makes picking easier. Cranberry vines

the cranberries out of the tangled vines,

making them easier to pick.

Cranberry plantation

www.cranberry.ca

Marsh

www.cranberryvine.com

Harvest - rounding up the berries

www.cranberryvine.com

www.cranberry.ca

www.cranberryvine.com

CULTIVATION OF LARGE CRANBERRY IN PEAT BOG IN LATVIA

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Cranberry in peat bog, in Latvia

The large cranberry (Vaccinium macrocarpon Ait.) is evergreen Ericaceae plant. The berries of Vaccinium macrocarpon contain many vitamins and minerals (C, B1, B2, B3, Fe, Na, K, Ca, etc.) and other biologically active substances (antocyanins, flavonoids, pectin, benzoic acid, etc.).

The large cranberry has been cultivated since 1816 in North America, but in Latvia first plantations started to plant at the end of the 1990s and now producing cranberry plantations exceed 170 ha in Latvia. The climate is suitable for growing of large cranberry in North America and Latvia as well, but growing conditions are different and it affect the berry quality. The optimal soil for large cranberry is acid - pH KCl 4–5 (can grow also at pH 3,9–5,9).

Aim. To compare growing conditions of large cranberry in North America and Latvia.

North America (USA, Canada)

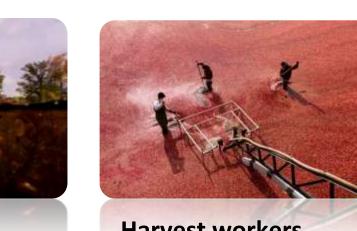
- Artificial beds "bogs" use any type of mineral soil as basic (sandy loam, loamy sand or clay) and 20-30 cm organic soil layer (peat, muck, renovation sediments, yard compost, decomposed wood waste).
- High developed cultivation technologies, but expenses are very high
- The large number of pathogens makes a problem to understand the biology of the disease. Fruit rot is the most serious yield-limiting disease problem and is associated with more than 15 causal agents, but more than 150 pathogens are known. form a dense ground cover. Flooding floats
 - More than 80 species of weeds have been found in plantations, many herbicides are registered and used for weed control.
 - Over 20 insects cause injury to the cranberry and three are direct fruit pests.
 - More than 40 pesticides are registered in North America.
 - In North America cranberries cannot be grown without pesticides.
 - In North America the growers use wet-harvesting method the field is flowed at a height of 40-50 cm and hold a water for many days covering the cranberry vines. The field is flowed at a height of 40-50 cm and hold a water for many days, covered the cranberry vines. The special combine plucked the berries and then berries come to the surface of the water. Then by a conveyor, the berries are bundled into trailers and transported.



- + harvesting process is faster
- high labor costs and difficult technology
- poor berry quality
- high incidence of storage rot, berries are not suitable for store
- harvested berries are necessary to freeze or process



Fresh berry harvest

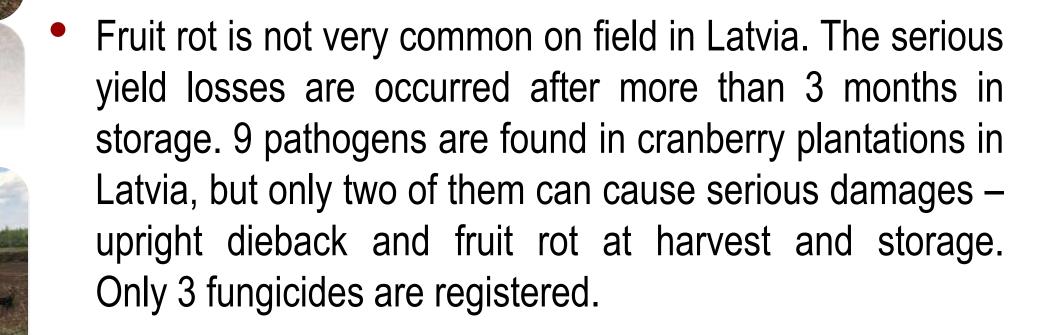


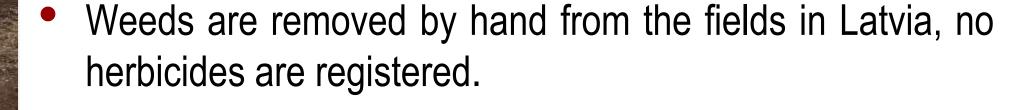
Harvest workers Harvest process

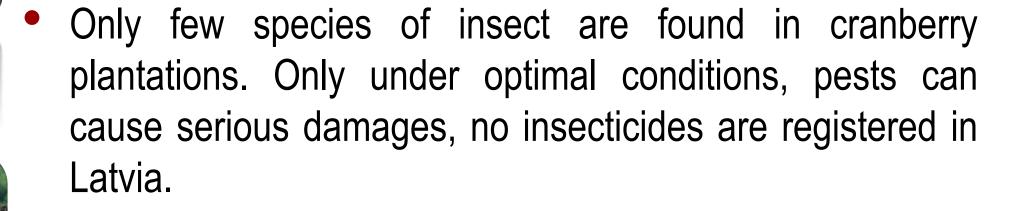
Wisconsin cranberries, www.wiscran.org

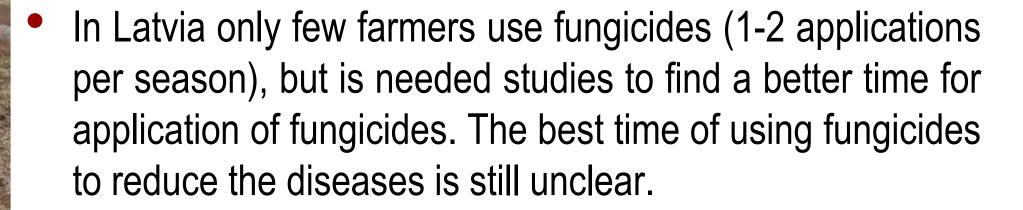
Latvia

- Use areas in raised bogs (peat moss) after peat extraction, if a peat layer is at least 50-60 cm after peat cutting.
- In Latvia is needed studies to improve cultivation technologies









Latvian growers use dry-harvesting method, berries are picked by hands or use combines



Mechanical vine pruning and removing

Planting – use cranberry vines

New plantation in peat bog

Weeding

Dry harvesting in Latvia

Picking berries by hands



Dry harvesting

- + less undamaged berries
- + longer storage period (3-4 months)
- slower harvesting process



Mulching cranberries with sawdust

Conclusions:

www.cranberryvine.com

Harvest

- The climate and growing conditions are suitable for large cranberry in Latvia and berries are healthier than grown in North America.
- Latvia is the only country in the European Union where large cranberry is cultivated, this would be good export opportunities.
- In Latvia is needed studies to improve cultivation technologies of large cranberry to increase the yields as North America.







