

Tree 16:96-97.

15. Preston, A. P. 1978. Size controlling apple rootstocks. Acta. Hort. 65:149-155.
16. Simons, R., R. Hayden, P. Domoto, F. Morrison, W. Lord, R. Perry, M. Warmund, and E. Stang. 1986. NC-140 1976 Coopera-

tive Apple Interstem Planting. Fruit Var. J. 40:108-115.

17. Van Oosten, H. J. 1986. Intracloonal variation in M.9 rootstock and its effects on nursery and orchard performance. Acta. Hort. 160:67-72.

**Fruit Varieties Journal 41(1):39 1987**

## **Facts About Lingonberries (Cowberries, Partridgeberries)**

**Botany—distribution.** The lingonberry plant (*Vaccinium vitis idaea*) belongs to *Ericaceae* family like the blueberries. It is a species which is boreal-circumpolar and wild growing in the forests of Scandinavia. Lingonberries are also found in Siberia, Japan and North America. A variety, *V. vitis idaea minor* or Partridgeberry, is common on Newfoundland. The plant is very hardy and drought resistant.

The lingonberry plant is a dwarf shrub with winter-green leaves, plant height about 25-30 cm. The ramified branch structure is built up by annually produced side shoots, 3-4 cm long with 5-9 leaves, where the flower buds are formed in the axils. The plant is spreading through the superficial soil layers by runners, rhizomes, which develop buds and new shoots. Gradually the shoots can cover the ground completely. The rhizomes also develop a very fine, fragile root system.

The lingonberries flower in May-June on racemes developed from the buds initiated the years before. There are 5-7 urn shaped flowers which are white to reddish, rather similar to the lowbush blueberry. The lingonberry is self-fertile and fruitset is prompted by insect pollination, mostly by bumble bees. The berries ripen in August. They are shining red, 5-7 mm in diameter with an average berry weight of 0.3 g. The seeds are very small.

Viktor Trajkovski. 1986. From Vaxtforadling Av Frukt och bar Balsgard Verksanhetsberattelse 1984-1985 Report, pp. 134-37.

**Propagation.** As pointed out above the lingonberry propagates naturally by spreading rhizomes. Cuttings or rhizomes or shoots are also easy to root and is utilized in vegetative propagation of clones, single plants, as well as meristem propagation technique.

**Cultivation.** The lingonberry plants thrive on soils where blueberries, *Rhododendron* and heather are grown. The soils must be low in calcium which otherwise is taken up in toxic amounts. The best conditions provide acid, (pH 4-5), light soils which are high on organic matter e.g. peat. Mulching with peat or saw dust is beneficial.

Nutrient requirements are low and one should use fertilizers recommended for *Rhododendron* or blueberries at a low dosage distributed over several times. Too high nitrogen availability will decrease flower bud formation and promote the vegetative growth. Irrigation in dry periods will also promote plant development and yield.

The weed control during the establishment of plants ought to be done manually. Hoeing must be done carefully because of the runners. Perennial weeds should be eradicated before planting.

The lingonberries are harvested by rakes similar to lowbush blueberries. Depending on growing conditions, age of plants, plant density and cultivation, the yields may be 0.3-1 kg/m<sup>2</sup>.