HASKAP Evaluation & Management Developments 2013-2014

(NEOSCIA Interim Partner Grant Project)

Purpose:

To determine the best soils, fertility management, and mulching requirements for this new variety of cool climate berry in North-Eastern Ontario.

Background:

Introduced by the University of Saskatchewan (UofS) in 2007, this orchard crop is readily available through both tissue culture and normal propagation, primarily in the western provinces and the Maritimes. Although more than a half million UofS plants (crosses of Siberian and Japanese strains) have been purchased by both farmers and home gardeners (primarily in the west and Nova Scotia), there is probably less than 30 acres (equivalent) planted in Ontario. This could be due to the lack of management information available for Ontario, as well as the potential for the plant to do poorly in the warmer climate of southern Ontario, (while possibly adapting quite well to northern Ontario conditions). Little information or promotion of the crop has been done anywhere in Ontario beyond the spring nursery section of the Loblaw “Presidents Choice” grocery chain.

Figure 1. Haskap Berry’s Ready for Harvest

Methods:

A total of 2000 plants (originating from Tissue-culture) were purchased from Phytocultures Ltd of PEI. Fifteen growers each planted 100 “producer” plants (of 4 strains) and a dozen “pollinator” plants. All would be planted into the grower’s choice of his most suitable soil, with a portion being planted into ‘native’ soil (no fertilizer added) and the rest planted with the grower’s choice of fertilizer or other amendments. Survival and growth measurements would be taken in the fall of 2013, followed by similar measurements plus soil tests and corresponding plant leaf tissue analysis in midsummer of 2014.

One grower (in Temiskaming) had a mulch layer and a small drip-line irrigation system available, and his site was chosen for a 400+ plant evaluation of both white and black

plastic mulch at various material thicknesses. The site would also have amendments added to the soil under portions of each row to increase the availability of moisture during the growing season. Measurements similar to those taken by the other growers would be collected.

Sixteen growers were chosen from across North-eastern Ontario, representing climatic Zones #1 through 5. All 8 Districts of the NEOSCIA region would be represented. Treatments: Specific treatments at each farm will not be available for publication at this time as all applications intentionally differ from one another in order to increase the opportunity of determining ideal RANGES of nutrient application in various soils. Soil and leaf tissue analysis (provided by SGS Agrifood Laboratories) will help to determine this range by the end of 2014. Assessments: In the fall of 2013, growers will determine survival rates of the individual varieties, and will measure the growth rates of such. In July, 2014, the RCC will visit all farms, collect soil and leaf tissue for analysis, and take midseason measurements. Growers will take final growth measurements in the fall of 2014.

Results:

Based on the fall 2013 observations, the survival rates of all varieties was between 90 and 92%. The average height of all varieties was initially about 10 cm at spring planting. The producer varieties grew to between 20 and 23 cm on average, while the "Pollinators" averaged a height of 35 cm by freeze-up. Surprisingly, the RANGE of growth for every variety, (and at most locations) indicated that individual plants could be 50% larger or smaller than average.

Summary:

First year field observations indicate that there is no consistency of growth (for tissue culture plantlets), even within specific varieties of Haskap, during the first year.

Next Steps:

Continue the project through 2014.

Acknowledgements:

OSCIA is to be thanked by NEOSCIA for providing the basic "Partner" grant of $5000 in each of 2013 and 2014. Phytocultures Ltd. (www.phytocultures.com) of Cornwall, PEI, must be thanked for providing sufficient planting material for the project at a feasible cost. South Temiskaming Sud (Community Futures Development Corporation) is to be thanked for their willingness to offer financing for soil and plant tissue tests in 2014.

Communication Plan:

Reports on the project would be developed by the Regional Communication Coordinator (RCC) for NEOSCIA in both the fall of 2013 and 2014. This information would be released to the northern farm public via the NEOSCIA "Breaking Ground" farm newsletter (available through OSCIA) and live at meetings of the SCIA in northern Ontario, as well as at the OSCIA AGM in London, Ontario.

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