

Haskap Breeding

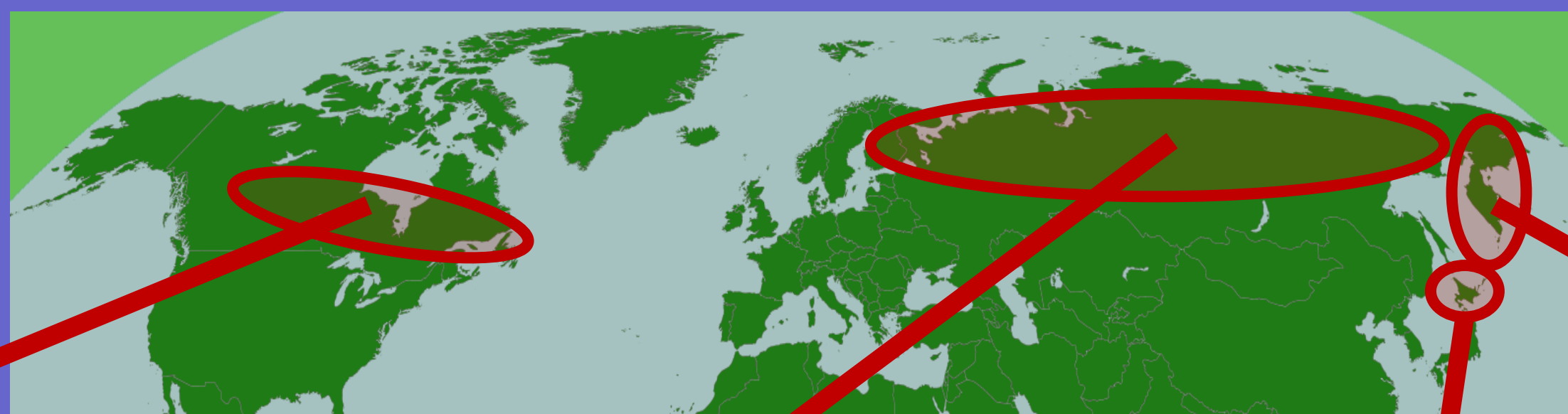
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Lonicera caerulea L. is a circumpolar species found near wetlands of boreal forests. It is not found in Alaska, BC, Yukon or Norway. We are extensively using the 4 subspecies listed below.

Germplasm



We started collecting *Lonicera caerulea* varieties in 1997 and breeding in 2002. In 2007 we began gathering ssp. *villosa* across Canada. Today, we have the world's most diverse germplasm collection and largest breeding program for this crop.



Germplasm Study

For over a decade we have observed and experimented with germplasm from Russia, Japan & Kurile Islands. We have identified superior selections to use in breeding. Our Canadian collection is fairly new & requires more study.

<i>Base Germplasm</i>							
J*		K		R		C	
<i>1st Generation Hybrids</i>							
J K		JR		KR		JC KC RC	
<i>2nd Generation Hybrids</i>							
J K x R		JR x K		KR x J		JC x R	
J K x RK		JR x KC		KR x CR			
J K x JK		JC x JR		KR x JR		etc.	
*(J= Japan; K=Kurile; R=Russia; C=Canada)							

Crossing Strategy

Each subspecies has unique & valuable attributes that we are incorporating into future varieties. Some key positive traits:
 J = large berries, upright bushes, flavour
 K = high sugar content, disease resistant
 R = early uniform ripening, high yields, flavour
 C = adapted to Canadian soils and weather

Selection Criteria

Top priority is Flavour

Best ones : like raspberry + blueberry + unique zing
 Bad ones: bitter or grassy or bland

2nd priority is Adapted to machinery Bushes:

Upright and spreading to fit harvester, high yield
 Berries: durable , roundish, uniform ripening, will not drop off early but comes off easily for a harvester.

Other priorities

Disease resistance & plant vigour
 Early, mid & late ripening varieties
 High levels of antioxidants and other healthy chemicals



2nd Generation Hybrids

Since obtaining research funding from the Sask. Ag. in 2007 we've grown over 20,000 hybrid seedlings, but we plant only the most vigorous seedlings. We are seeing many interesting combinations of features, including odd berry shapes and hybrid vigour. We expect release greatly improved varieties in the years to come.

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More info:

www.fruit.usask.ca

www.haskap.ca

