



Propagation Greenhouse

To propagate Alaska hardy berry plants

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Final Report

During the winter of 2008-2009, we started 200 cuttings in an existing shop. We realized that in order to be successful, we would need a larger area where conditions could be more easily regulated. We were awarded a grant to build a propagation greenhouse with attached storage, allowing us to increase the space we have available to propagate Alaska hardy berry plants. We built the greenhouse and attached storage area (barn) with locally available materials, except for the greenhouse film.

We began construction in June 2009 and completed the barn and greenhouse footings before winter. In February 2010, we started work bending the conduit for the greenhouse section and completed the Gothic arch style greenhouse in April 2010. The outside south wall of the barn provides the north wall of the greenhouse, so the natural gas heater installed in the barn blows warm air directly into the greenhouse. The east and west walls and roof of the greenhouse are a double layer of greenhouse film, with air blown between the layers to provide insulation. The south end wall of the greenhouse, where the exhaust fan is mounted is constructed with a wooden frame and rigid polycarbonate panels.

Because of the double-walled construction and natural gas heater, we will be able to start cuttings earlier in the spring. This will allow the plants to get large enough to be field-ready by late summer or fall. Those plants can be planted back into our fields to strengthen or replace our stock, or sold to local growers.

As of this date, we have started cuttings from our existing berry plants and are confident that they will be the first of many plants propagated and either used in our operation or sold to other local growers. The increase in available square footage and abundance of natural sunlight available in the propagation greenhouse will allow us to be more successful in the coming years. Because of the size of the greenhouse, we will build humidity domes around groups of cuttings to keep them viable.

A presentation on May 6, 2010 was coordinated through the local Co-operative Extension office for 12 local growers. Discussion focused both on building a greenhouse from local materials and an overview of propagation techniques. We discussed the methods we use to take a cutting from a dormant plant, start it in the greenhouse and raise it to the planting stage. Over 200 black currant, white currant and gooseberry cuttings from our home stock that are in a misting tent were available to view.

Last year our propagation success rate was about 12% of 200 cuttings. This year, we started the same number of cuttings, but our initial evaluation indicates that our success rate will be in the 60 - 70% range. We believe that further adjustments and refinements of our processes will allow us to increase that rate. With the additional space available, we will also be able to increase the number of plants each year.

Since we were still under construction this spring, we were not able to start as many cuttings as we had hoped, but we did start to propagate the first of April. Because of available natural light, they are growing at an amazing rate and will be transplantable by June, which is three months earlier than last year.

**Alaska Berries
AAIG Final Report
January 1 through May 6, 2010**

	<u>Date</u>	<u>Source Name</u>	<u>Memo</u>	<u>Amount</u>
Barn/Greenhouse				
	03/01/2010	Crescent Electric	conduit	487.00 —
	03/05/2010	GrowersSupply	Blower, controller & hose	252.59 —
	03/07/2010	Home Depot	2x4s	29.82
0.00 *	03/10/2010	McConkey Co	film, wiggle wire, channel	568.75 —
	03/15/2010	Lowe's	top rail	133.56 —
	03/22/2010	AIH	screws & washers	13.91
	03/25/2010	Jaderloon	cross connectors, bolts	76.50
	03/25/2010	Lowe's	boards	93.81
	03/25/2010	Lowe's	thermostat	9.92
487.00*+	03/26/2010	Brown's Electric	screw driver/strapping	11.49
252.59 +	03/30/2010	Home Depot	boards	117.27
568.75 +	04/05/2010	Miller Sheet Metal	box for fan	38.16
248.71 +	04/05/2010	Keller Supply	connect gas furnace in greenhouse	83.71
133.56 +	04/05/2010	Keller Supply	hook up gas	65.14
1,690.61 *	04/06/2010	Home Depot	conduit connectors, outlet boxes	248.71 —
	04/07/2010	Home Depot	couplers	24.65
	04/10/2010	Home Depot	elbows, couplers, straps	39.97
	04/12/2010	Spennard Builders Supply	Poly carbonate for wall	121.16
	04/14/2010	Lowe's	conduit and bracing	75.80
	04/17/2010	Home Depot	electrical wiring	119.34
	04/21/2010	Brown's Electric	lights	117.99
	04/29/2010	Lowe's	pvc box	18.70
	04/29/2010	Home Depot	switches/electrical	96.18
	04/30/2010	Home Depot	outlets/switches	22.29
Total Barn/Greenhouse				<u>2,866.42</u>
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Since we only needed to provide \$1,000 more of receipts, I did not copy all these. If you need additional receipts, I would be happy to provide them. The ones marked to the side are the copies included.

