

NACREW (North American Cranberry Research & Extension Workers)
[Moncton, NB Aug. 9-12, 2009]

Proceedings (with abstracts and PowerPoint presentations) are online at <http://nacrew.bioatlantech.nb.ca/inside/jpage/1/p/Proceedings/content.do> or just google NACREW and click the 'Proceedings' heading on the conference website. *Although some of the titles are displayed in French, the presentation materials are in English.*

Sanding Versus Pruning (on Stevens) [*This page was prepared by Charles Armstrong, Cranberry Professional, University of Maine Cooperative Extension, from his own notes from the conference as well as from Carolyn's presentation that is posted online.*]

“Sanding and Pruning Differentially Impact Cranberry Yield and Canopy Characteristics” – by Carolyn DeMoranville – Aug. 9th, NACREW Conference, Moncton, NB

Study was done to see if pruning might allow Massachusetts growers to move away from sanding, at least in some years, or to use alternately with sanding (depending on the study's results).

Some reasons why we sand and/or prune:

- To prevent excessive vegetative growth (resource competition → lower yields);
- To minimize/reduce shading;
- To prevent fungal diseases

Sanding:

- Increase in productivity;
- Improved pest management – insects primarily;
- Typically done every 2 to 5 years;
- ½” is beneficial in the 2nd year following the sanding;
- 1” is detrimental to yield but sometimes a good option for pest control;

Pruning:

- 10% lower yield in 1st year, but a 45% increase the following year;
- Can overcome sanding challenges/problems (sanding is expensive and there are uniformity issues);
- Never before compared directly against sanding in a side-by-side fashion;

Study Design & Results:

- Randomized Complete Block arranged in a Split-plot Design;
- Sanding: Resulted in **reduced leaf area** (fewer uprights), and there was a carry-over to the 2nd year, too;
- **Light penetration** is greater with sanding, initially, but after two years the light penetration amounts are equal between sanding versus pruning;
- **Leaf wetness**: greater with pruning (compared to sanding);
- **Yield**: negative impact on yield with sanding, especially if sanding heavy (1.5" or more);
- **TAcy**: increased in pruning treatments only;

Returns Per Acre with Pruning:

	Initial Cost	2006 gross	2006 net	2007 gross	2007 net	2 yrs net value
Control	\$0	\$9,021	\$5,821	\$7,204	\$3,904	\$9,725
Light Pruning*	\$179	\$13,592	\$10,213	\$9,309	\$6,009	\$16,222
Moderate Pruning*	\$885	\$8,410	\$4,852	\$6,089	\$2,789	\$7,641
Heavy Pruning*	\$1,327	\$6,870	\$3,133	\$6,675	\$3,375	\$6,508

*Light pruning = 1 pass with pruner; Moderate pruning = 2 passes; Heavy pruning = 3 passes;

Returns Per Acre with Sanding:

	Initial Cost	2006 gross	2006 net	2007 gross	2007 net	2 yrs net value
Control	\$0	\$8,118	\$4,918	\$8,749	\$5,449	\$10,367
Light Sanding (1/2")	\$3,190	\$11,363	\$6,872	\$9,335	\$6,035	\$12,907
Moderate Sanding	\$5,965	\$5,337	-\$277	\$4,431	\$1,131	\$854
Heavy Sanding (1.5"+)	\$8,734	\$4,232	-\$2,503	\$2,621	-\$679	-\$3,182

Conclusions:

1. **Light sanding or light pruning can be a useful tool for canopy management;**
2. **Sanding has greater risk** (More expensive; heavier amounts are detrimental, even after the 2nd year following the sanding)
3. **Resulting Recommendation Now Being Pitched to Massachusetts growers: Sand every 5 to 6 years, with pruning in between.**

One Other Important Point:

Is mowing viable? Answer appears to be **Yes!** There is a big bounce-back in Year 3.