## NOTES FROM THE NORTH

Minnesota Grape Growers Association

Volume 14. Number 4

December 1988

## A Response to "A Tale of Two (or more) Betas" by Elmer Swenson

As I was mentioned by John Marshall in a "A Tale of Two or More Betas" in the last issue of Notes From the North, I felt it was proper of me to respond.

First let me say that the two very similar plants that I have labeled Suelter and Monitor are in fact two separate and distinct varieties. The Monitor starts blossoming and also coloring of the fruit a day or two ahead of Suelter. Monitor has the larger cluster and most years a bit larger in berry tho this year the difference in berry size was not noticeable. Both have the same flavor, but Suelter seemed the sweeter, so possibly it is a bit lower in acid. Berries from both tested from 22 to 24 brix by hand refractometer. Both have a branched, wider and more open cluster with larger berry than others in the Beta group. The brushes of both are white, small, and short with some showing a bit of pink in the center part. Both have female blossoms and it was this fact that led me at first to think they were identical, as Munson stated in his book that the Suelter was the only female of the four named varieties he had received from Louis Suelter. This season in comparing both closely, I found where they differ and by which they can be easily identified. The Suelter has a leaf stem that is reddish brown on the upper side and is covered with a short fuzzy down easily seen under a reading glass. This fuzz also extends on the veins on the underside of the leaf. The soft, unripened shoot of Suelter shows streaks of this reddish brown color, while on Monitor it is a clear green. The leaf stem of Monitor is also clear green and free of hairy growth while the veins on the underside of the leaf have only a very few short stiff hairs. I can see no difference in leaf shape, size or contour of teeth between the two or for that matter others of the Beta group. All have a light yellowish green color of the tips of the growing shoots.

Partly in response to John's article and partly out of curiosity, I went to see my neighbors Beta. I have no plant of my own tho I had one many years ago. I took it out after getting Suelter, keeping what seemed to me the better of the two. His Beta seemed typical in flavor, size and shape of cluster, and berry. However it was distinctive in that

the underside of the leaf was slightly felted and on older leaves this down was shedding. I didn't remember the Beta I had grown as being that way. We then went to his sons place where there was a very old Beta vine. From the girth of the trunk, I would estimate the plant to be 40–50 years old. It had spread at least 20 feet in each direction along a fence, uncared for except to cut off vines that went on the ground and harvesting some of the bushels of fruit it produced every year. It was a healthy, thriving plant and seemed identical in fruit to the first one we looked at, which was a young plant 4 years old, but different in the leaf which had no down on the underside. Both had a small, short brush red in color. The leaf stems and growing shoots showed strips of color like the suelter I have. The first one had a sugar reading of 24 brix. The second 22. Which may have been caused by the very heavy production of the older plant.In spending an evening of searching and checking but two plants, I found two different, yet very similar Betas. Which is authentic and which is the wild card? We may never know, as Louis Suelter had saved five of his seedlings and named only four, there surely is a wild card circulating.

Now as to why Dr. Alderman questioned the fact that Beta is a hybrid. It was because Beta does something a hybrid ordinarily does not do. That is, when selfed, it's seedlings come true or nearly identical to the parent. Being a Riparia x Labrusca hybrid such seedlings should show reversion back to the two species. I have grown no seedlings of Beta either crossed or selfed, but while at the research Center I went thru the old grape breeding records there and a great number of Beta seedlings had been grown that were not by controlled pollination, so were most likely selfed. All were described as Beta type or similar to Beta. I think this is why he had questions about Beta, thinking it should perhaps have species designation. Here he was in good company as T. V. Munson had the same experience with the Herbemont and Lenoir, probable Aestivalis - Cinerea - Vinifera hybrids that he designated the species Bourquiniana. This on the strength of a statement by a Mr. Bourquin of Savanah, Georgia that the Herbemont and Lenoir had been grown by his family in Georgia for 150 years and that they had originally been brought to this country from France. This is well documented in his book "Foundations of American Grape Culture. Because there was mystery and romance surrounding these grapes that thrived so well in the south eastern United States. Bourquin and other southern gentlemen of his generation were mistaken in saying they had originated in France because they were imported into France from this country in great numbers during the European phyloxera crisis. Had they not had American species in their makeup they would have been as suceptible to phyloxera as the vinifera.

There is no doubt in my mind that the Beta group are true Riparia x Labrusca hybrids, as I have grown a large number of seedlings from MN #78 (which came from a Beta cross) and several of these seedlings from different non Riparia pollen sources have shown reversion back to the Riparia species. Some were so like the wild that they were either male or female, never hermophrodites. One cross which showed this graphically was MN #78 x Kendaia. About 2/3 of these seedlings were very Labrusca like in both foliage and fruit while the rest were much more like wild Riparia than Beta. I still have a hardy plant from that cross, my #80, a Labrusca type and maternal grandparent to my 5–14 and 5–17 which I have used as seed parents in some of my latest crosses.

What then do I think of the Beta? It's a great plant for covering a fence of an ornamental arbor. Great also for jelly. I prefer it that way to Concord. Will the true Beta ever be positively identified? I doubt it because it's pure seedlings are so like it and several of them are likely being grown. I have one such given my by Galen Meier. he called it "Sweet Mildred". I also have another that is a Beta type given my be Peter Hemstad. It's a recent Research Center aquisition. Very vigorous, precocious and productive, it fruited here this season, tho planted only last year. I also believe the Alpha

to be a Beta seedling. It was found in the wild near Collegeville, Minnesota. Likely planted by an obliging bird. I have a plant of Alpha grown from cuttings given me by one of the Brothers at St. Johns Abby, collected by him from an old Abby vineyard.

I believe the greatest value of the Beta group is as a hardy and adaptable base to use in breeding. Both Edelweiss and Swenson Red have Beta as a maternal grandparent. Within the last 15 years the Suelter has been used as a seed parent at the Research Center and Dave Macgregor and myself are also growing seedlings of Suelter. Bob Warner has used Beta in breeding. Also Byron Johnson at Cincinatti and perhaps others I do not know of.

The season of 1986 I crossed the MN #78, Suelter and Monitor with Carman, which is a first generation hybrid of V. Lincecumii x Triumph by Munson. The pollen being furnished thru the kindness and help of Lon Rombough. About 200 plants were set in the vineyard this past spring and considering our long drought and excessive heat, have done quite well. Not much growth but a survival of about 95%. Perhaps some Lincecumii blood is needed for such conditions.

The season of 1982 I decided to use my #442 in breeding, using it's pollen on Edeleweiss, Wilcox's 319 and my 5-17. 442 is a sibling of Swenson Red. It is a blue slipskin that ripens later, has less vigor, more upright growth, with very few laterals, resistant to downy mildew, tho some suceptibility to black rot. It is smaller in berry and not of high enough quality as either wine or table use to warrant naming. It is however the most winter hardy of it's group, approaching that of MN #78, its seed parent. This season plants from all three mateings fruited quite heavily. On Wilcox's 319 the 442 affected a good increase in cluster size, the flavors were Labrusca. The 5-17 cross had the best survival rate with berries of all being only of medium size. Labrusca flavors were not noticeable. Perhaps a selection or two will be made for wine but we will wait another year. The Edelweiss cross had the poorest survival rate with some plants missing. There was a noticeable reduction in vigor compared to Edelweiss with fruit color about evenly divided between blue and white. Nearly all had some Labrusca flavor, tho most not as strong as Edelweiss. From this cross one selection was made, its identification number is 6-1-43. This is the third year it has fruited and is white, ripening very early, has a large cluster shaped like Edelweiss, but a bit more compact. The berries are larger than Edelweiss but like it, is slipskin with a tender and juicy pulp. It is very sweet and flavorful, does not develop the strong almost bitter flavor that Edelweiss does late in the season. As I write this (September 19) it has been ripe and good eating for nearly 6 weeks. Flocks of migrating birds have done much damage in my vineyard staying for two weeks in mid August. At least half of the berries of 6-1-43 were punctured but unaffected berries are still firm and delicious. To sum it up it is a good improvement on Edelweiss.

When I consider this grape and compare it to Beta from which it is decended thru both seed and pollen parent, I am amazed at what nature, with a little assist can do in 4 generations.