

SMBSC OBSERVATIONS FOR 2017 VARIETIES

These three pages are a summary of field observations over the past few seasons, as well as Official Trial data, SMBSC Strip Trial data, and seed company information on the varieties approved for 2017. This summary was compiled to provide another tool to help your variety selection for the 2017 crop.

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2017 FULL APPROVAL VARIETIES

Beta 92RR30: Beta 92RR30 was planted on approximately 8,000 acres in 2016. 92RR30 performed well in the SMBSC Official Trials. Tolerance to Cercospora leaf spot is better than average. 92RR30 has shown above average tolerance to Aphanomyces root rot in the 2014 - 2016 Aphanomyces nursery results and is considered an Aphanomyces specialty variety. Rhizoctonia ratings are average of the approved varieties; consider a foliar Rhizoctonia fungicide application at 4-8 leaf when planting 92RR30. 92RR30 has a stronger total disease package than most of the Fully Approved Varieties. Betaseed reports 92RR30 has strong root aphid tolerance and low to moderate Fusarium root rot tolerance.

Beta 92RR60: Beta 92RR60 has been a strong performer in the SMBSC Official Trials the past three years. In 2016, 92RR60 was planted on 5,000 acres. 92RR60 has above average sugar and yield potential. Cercospora leaf spot tolerance is weaker than average with 92RR60 which makes an aggressive CLS spray program important with this variety. In 2017, do not plant 92RR60 on fields that are adjacent to 2016 sugar beet fields due to Cercospora risk. Rhizoctonia and Aphanomyces nursery data indicate 92RR60 is average or weaker than average on these diseases. A post-emerge application of a fungicide for Rhizoctonia suppression is an important practice with 92RR60. Betaseed reports 92RR60 has strong root aphid tolerance with moderate or lower tolerance to Fusarium root rot.

Beta 9475: Beta 9475 was a Test Market Variety for 2016 planted on 1,500 acres. Beta 9475 performed well both in the SMBSC Official Trials as well as the SMBSC Variety Strip Trials in 2016. 9475 is a strong sugar per acre variety with average sugar per ton. Cercospora leaf spot tolerance is the best of the Fully Approved Varieties, and it is also approved as a Cercospora Specialty Variety for 2017. Rhizoctonia root rot tolerance is average with 9475. One weakness of 9475 is Aphanomyces root rot tolerance. The three year Aphanomyces ratings are weaker than average. For 2017, do not plant 9475 on fields with a history of high levels of Aphanomyces. Betaseed reports that 9475 has good root aphid tolerance.

Crystal M375: Crystal M375 was a Fully Approved Variety in 2016 planted on 5,000 acres. M375 showed strong yield and sugar potential in both the Official Trials. The disease nursery data, as well as field observations, indicate that M375 is weak on Rhizoctonia, Cercospora, and Aphanomyces. Because of these traits, careful placement of this variety and additional management practices are required to be successful. Fields with low beet history and low disease potential are a good fit for M375. An aggressive CLS spray program is important with M375. In 2017, do not plant M375 on fields that are adjacent to 2016 sugar beet fields due to Cercospora risk. A post-emerge application of a fungicide for Rhizoctonia suppression should be considered necessary for M375. Aphanomyces root rot tolerance is weaker than average and thus, fields with high Aphanomyces potential should be avoided with M375. ACH Seeds reports that M375 has root aphid tolerance.

Crystal M380: Crystal M380 was a Fully Approved Variety planted on 10,000 acres. M380 has a stronger total disease package than most of the Fully Approved Varieties. The Aphanomyces resistance with M380 is among the best of all varieties and thus, it was given Aphanomyces Specialty Status. Cercospora tolerance is near average with M380. Rhizoctonia root rot ratings from the disease nurseries have been a little erratic over the past three years for M380. The application of a post-emerge fungicide treatment for Rhizoctonia suppression would be a good practice with M380. ACH Seeds reports that M380 has tolerance to root aphid and Fusarium root rot.

Crystal RR270: Crystal RR270 was a Fully Approved Variety in 2016 and was planted on approximately 500 acres. In previous years, RR270 has shown above average sugar contents. In 2016, susceptibility to Cercospora reduced the sugar content and yield of RR270. Cercospora tolerance is weaker than average with RR270 which makes an aggressive CLS spray program important with this variety. In 2017, do not plant RR270 on fields that are adjacent to 2016 sugar beet fields due to RR270's poor Cercospora tolerance. Rhizoctonia tolerance is weaker than average. A post-emerge application of a fungicide for Rhizoctonia suppression would be a good practice with RR270. ACH reports that RR270 has some tolerance to root aphid.

Maribo MA109RR: Maribo MA109RR has been a Rhizoctonia Specialty Variety for the past several years. The Rhizoctonia root rot rating of MA109RR has been among the best of any variety in the SMBSC Official Trials in each of the past three years. MA109RR has average revenue per ton and revenue per acre of the Approved Varieties. Cercospora leaf spot ratings are better than average. It has average ratings on Aphanomyces root rot. MA109RR has a smaller canopy than most varieties which is readily apparent when planted side by side to other varieties.

2017 TEST MARKET VARIETIES

Test Market Varieties usually possess two or more years of trial data and either have not been field-tested or require further observation. Varieties that have a Test Market designation may be planted on up to 10% of the Cooperative acreage. Test Market Status allows shareholders to get a look at new varieties on a limited acre basis as none of these varieties have been planted commercially in the SMBSC growing area.

Beta 9545: Beta 9545 achieved Test Market Status for 2017. In the 2015-2016 Official Trials, 9545 had average sugar per ton and sugar per acre in comparison to the Fully Approved Varieties. Cercospora leaf spot ratings are weaker than average. For 2017, do not plant 9545 on a common line to a 2016 sugar beet field due to Cercospora risk. Rhizoctonia ratings are near average, but Aphanomyces ratings show 9545 to be weaker than average on this disease. Betaseed reports that 9545 has tolerance to root aphid.

Beta 9565: Beta 9565 achieved Test Market Status for 2017. In the 2015-2016 Official Trials, 9565 had below average sugar per ton, but above average sugar per acre in comparison to the Fully Approved Varieties. Cercospora leaf spot ratings are average of the Approved Varieties. Rhizoctonia ratings are slightly better than average, and Aphanomyces ratings are average. Betaseed reports that 9545 has tolerance to root aphid.

Crystal M579: Crystal M579 achieved both Test Market Status and High Sugar Specialty Approval Status for 2017. In the 2015 and 2016 Official Trials, M579 had the highest recoverable sugar per ton of any variety tested. M579 also was above average for recoverable sugar per acre. Cercospora leaf spot and Aphanomyces root rot ratings are near average for both these diseases. In the Rhizoctonia nurseries, M579 was weaker than average. A post-emerge fungicide application for Rhizoctonia suppression would be a good program with M579. ACH Seeds reports that M579 has tolerance to root aphids.

Hilleshog 9739: Hilleshog 9739 achieved Test Market Status for 2017. 9739 has both strong Cercospora leaf spot tolerance as well as above average tolerance to Rhizoctonia root rot. Hilleshog 9739 is a good defensive variety for these diseases. 2015-2016 Official Trial yield results for 9739 have been below average for recoverable sugar per ton and recoverable sugar per acre. Aphanomyces ratings are weaker than average for 9739.

SV RR958: SV RR958 achieved Test Market Status for 2017. RR958 performed well in the 2016 Variety Strip Trials. RR958 had below average sugar per ton and average recoverable sugar per acre in the 2015-2016 Official Variety Trials. The Cercospora leaf spot and Rhizoctonia root rot ratings are average of the Fully Approved Varieties. The Aphanomyces root rot ratings for RR958 are weaker than average.

2017 Specialty Approved Varieties:

These varieties do not make the requirements for Full Approval; however, Aphanomyces, Rhizoctonia, or Cercospora nursery testing and field observations indicate these varieties possess better than average tolerance to these diseases.

Crystal RR018 (Rhizoctonia Specialty Variety): Crystal RR018 was a Fully Approved Variety in 2015 and was planted on approximately 50,000 acres. RR018 has performed strongly in the field the past several seasons. RR018 has average ratings for Aphanomyces and stronger than average ratings for Cercospora leaf spot. The Rhizoctonia root rot ratings are stronger than average and it was granted Rhizoctonia Specialty Approval for 2016. ACH reports that RR018 has some resistance to root aphid and is rated as good on Fusarium root rot.

Hilleshog 9093RR (Rhizoctonia Specialty Variety): Hilleshog 9093RR has been a Rhizoctonia Specialty Variety from 2009 - 2016. 9093RR continues to show strong resistance ratings to Rhizoctonia root rot in the disease nurseries. It is consistently one of the best varieties in the rhizoctonia nurseries. 9093RR is weaker than average on Aphanomyces and has average Cercospora leaf spot ratings.

Beta 9505 (Cercospora Specialty Variety): Beta 9505 is one of the best varieties for Cercospora leaf spot ratings in the 2015-2016 CLS nurseries. The CLS ratings are better than any of the Fully Approved Varieties. 9505 has below average recoverable sugar per ton, but slightly above average recoverable sugar per acre in the 2015-2016 Official Trials. Aphanomyces root rot ratings are also better than average for 9505. Rhizoctonia ratings are near the average of the Fully Approved Varieties.

Crystal M509 (Cercospora Specialty Variety): Crystal M509 is one of the best varieties for Cercospora Leaf Spot ratings in the 2015-2016 CLS nurseries. The CLS ratings are better than any of the Fully Approved Varieties. M509 has below average recoverable sugar per ton in the Official Trials. Recoverable sugar per acre is above average for M509 due to a strong tonnage potential. Crystal M509 has better than average ratings for Aphanomyces root rot. The Rhizoctonia root rot ratings are near the average of the Fully Approved Varieties.

2017 Seed Selection Matrix											
				*based on 2015 and 2016 OVT data and field observations.							
Variety	Revenue per Ton	Revenue per Acre	Rec.Sugar per Ton	Rec.Sugar per Acre	Rhizoctonia Root Rot	Aphanomyces Root Rot	Cercospora	Rhizomania	Root		
									Aphid	Fusarium	
2017 Fully Approved Varieties											
Beta 92RR30	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Yellow	
Beta 92RR60	Green	Green	Green	Green	Yellow	Green	Red	Green	Green	Yellow	
Beta 9475	Yellow	Green	Yellow	Green	Green	Red	Green	Green	Green	Yellow	
Crystal M375	Green	Green	Green	Green	Red	Red	Red	Green	Green	Yellow	
Crystal M380	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Green	Green	Green	
Crystal RR270	Red	Red	Red	Red	Red	Yellow	Red	Green	Green	Yellow	
Maribo MA109RR	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Green	Yellow	Yellow	Yellow	
2017 Test Market Varieties											
Beta 9545	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Green	Green	Yellow	
Beta 9565	Red	Green	Yellow	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	
Crystal M579	Green	Green	Green	Green	Red	Yellow	Yellow	Green	Green	Yellow	
Hilleshog 9739	Red	Red	Red	Red	Green	Red	Green	Green	Yellow	Yellow	
SV 958RR	Red	Yellow	Red	Yellow	Yellow	Red	Yellow	Green	Yellow	Yellow	
2017 Rhizoctonia, Aphanomyces, and Cercospora Specialty Varieties											
Beta 9505	Red	Yellow	Red	Green	Yellow	Green	Green	Green	Green	Yellow	
Crystal M509	Red	Green	Red	Green	Yellow	Green	Green	Green	Green	Yellow	
Crystal RR018	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Green	Green	Yellow	
Hilleshog 9093RR	Red	Red	Red	Red	Green	Red	Yellow	Yellow	Yellow	Yellow	
2017 Last Year of Sales											
Beta 90RR54	Red	Yellow	Red	Yellow	Green	Green	Green	Green	Yellow	Green	
Green = Better than average Yellow = Near Average Red = Weaker than average											