

# SMBSC OBSERVATIONS FOR 2020 VARIETIES

These four 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 2020. This summary was compiled to provide another tool to help your variety selection for the 2020 crop.

Cody Groen  
Production Agronomist

Mark Bloomquist  
Research Director

## 2020 Seed Selection Matrix

<u>Variety</u>	<u>% Revenue per Ton</u>	<u>% Revenue per Acre</u>	<u>Cercospora</u>	<u>Rhizoctonia Root Rot</u>	<u>Aphanomyces Root Rot</u>	<u>Rhizomania</u>	<u>Root Aphid</u>	<u>Fusarium</u>
----------------	--------------------------	---------------------------	-------------------	-----------------------------	-----------------------------	-------------------	-------------------	-----------------

### 2020 Fully Approved Varieties

Beta 9475	97.0	96.2	4.2	4.8	4.3			
Beta 9780	102.5	104.1	4.1	5.3	4.1			
Crystal M579	100.5	99.6	4.5	5.6	4.1			

### 2020 Test Market Varieties

Hilleshog 2327	Only 1 year of data is available on Hilleshog 2327. See variety descriptions for information							
SV 883	92.2	93.1	4.2	3.6	4.3			

### 2020 Cercospora, Rhizoctonia, and Aphanomyces Specialty Varieties

Beta 9810	96.9	97.0	4.1	4.2	3.0			
Crystal RR018	89.2	80.0	4.7	3.7	4.4			
Crystal M509	84.7	96.6	4.1	4.9	4.2			
Crystal M623	92.4	87.7	4.4	3.4	4.1			
Crystal M821	96.7	92.6	3.8	5.1	3.3			
Crystal M837	99.9	99.0	3.9	4.7	3.8			
Hilleshog 2219	96.1	85.0	4.0	3.4	4.9			
Hilleshog 9739	82.2	74.5	4.1	3.3	5.0			
Maribo M801	88.6	76.3	3.7	4.6	5.0			
SV 881	90.2	92.5	3.8	3.8	4.4			
SV RR862	90.6	92.8	3.8	3.7	4.3			
SV RR863	90.6	93.4	3.8	3.8	4.3			

Green = Better than average

Yellow = Near Average

Red = Weaker than average

All data is from **TWO YEARS** of testing: **2018 and 2019**. Varieties with omitted data have only one year of testing.

## **2020 FULL APPROVAL VARIETIES**

**Beta 9475:** Beta 9475 was a Fully Approved Variety and Cercospora Specialty Variety for 2019 planted on approximately 23,000 acres. 9475 is a balanced sugar per acre and sugar per ton variety. Cercospora leafspot tolerance is average at a 4.2 rating. Rhizoctonia root rot tolerance is average or slightly weaker than average with 9475; consider a foliar or in-furrow Rhizoctonia fungicide application with 9475. The three year Aphanomyces ratings average. Betaseed reports that 9475 has root aphid tolerance and some Fusarium tolerance.

**Beta 9780:** Beta 9780 makes Full Approval for 2020 after being a Test Market Variety in 2019. 9780 was planted on approximately 6,000 acres in 2019. 9780 has above average sugar per ton and sugar per acre in the Official Trials and also performed very well in the SMBSC strip trials. 9780 has good CLS and Aphanomyces ratings. Rhizoctonia root rot tolerance is weaker than average and a foliar or in-furrow Rhizoctonia fungicide application is recommended with 9780. Betaseed reports that 9780 has root aphid tolerance as well as tolerance to Fusarium.

**Crystal M579:** Crystal M579 was a Fully Approved Variety in 2019, however a seed production issue prevented any significant planting for the 2019 season. In three years of testing in the Official Trials M579 had good sugar per ton and sugar per acre potential. Cercospora leaf spot tolerance is weaker than average and a strict CLS fungicide program is necessary with M579. Aphanomyces root rot ratings are near average. M579 Rhizoctonia ratings are weaker than average. Careful placement of M579 and aggressive pest management can bring out high return characteristics. An in-furrow or post-emerge fungicide application for Rhizoctonia suppression would be a good program with M579. ACH Seeds reports that M579 has tolerance to root aphids.

## **2020 TEST MARKET VARIETIES**

Test Market Varieties usually possess one or two 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.

**Hilleshog 2327:** Hilleshog 2327 was a first year tested variety in the SMBSC Official Trials in 2019. One year data in the 2019 Official Trials shows 2327 having near average sugar per ton and above average sugar per acre. 2327 has better than average Cercospora and Rhizoctonia tolerance. Aphanomyces tolerance is weaker than average. Hilleshog 2327 has only one year of data, and thus care should be taken when placing 2327 onto fields until more experience is gained on field performance with this variety.

**SV 883:** SV 883 has been tested two seasons in the SMBSC Official Trials and attains Test Market Status for 2020. SV 883 has slightly below average sugar per ton and near average sugar per acre in the two year Official Trial data. CLS and Aph ratings are near average with SV 883, while 883 has better than average ratings on Rhizoctonia root rot.

# 2020 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 Rhizoctonia Specialty Variety in 2019 planted on approximately 2,200 acres. The Rhizoctonia root rot ratings are stronger than average and it was granted Rhizoctonia Specialty Approval for 2020. In the Official Trials, RR018 has lower than average sugar per ton and sugar per acre. RR018 has weaker than average ratings for Aphanomyces and Cercospora leafspot. A strict CLS fungicide program is necessary for success with RR018. ACH reports that RR018 has some resistance to root aphid and is rated as good on Fusarium root rot.

**Crystal M623 (Rhizoctonia Specialty Variety):** In the 2017-2019 Official Trials, M623 had near average sugar per ton and lower than average sugar per acre. In three years of disease nursery testing, M623 has a strong rating for Rhizoctonia root rot, and thus was granted Rhizoctonia Specialty Status for 2020. Disease nursery ratings place M623 at average scores for Aphanomyces root rot and below average for Cercospora leafspot. A strict CLS fungicide program is necessary for success with M623. ACH reports M623 has good tolerance to root aphid.

**Hilleshog 9739 (Rhizoctonia Specialty and Cercospora Specialty Variety):** Hilleshog 9739 has a strong Rhizoctonia root rot rating and was granted Rhizoctonia Specialty Approval for 2020. 9739 also has better than average Cercospora leaf spot tolerance as well and was granted CLS Specialty Approval for 2020. 9739 is a good defensive variety for these diseases. 2017-2019 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.

**Beta 9810 (Cercospora Specialty Variety):** Beta 9810 has been tested for two seasons in the SMBSC Official Variety Trials and obtains both Test Market Status as well as CLS Specialty Status for 2020. Beta 9810 has average sugar per ton and sugar per acre in the two year Official Trial data. Beta 9810 has a CLS rating of 4.1 which qualifies it as a CLS specialty variety. 9810 has one of the best ratings of the approved varieties for Aphanomyces in the Official Trial Aphanomyces nursery data and has the potential to be an Aphanomyces Specialty variety if performance in the trials and in the field is similar for 2020. Rhizoctonia ratings are average with 9810.

**Crystal M509 (Cercospora Specialty Variety):** Crystal M509 was a CLS Specialty Approved variety for 2019 planted on approximately 35,000 acres. It meets the approval criteria for CLS Specialty Approval again in 2020. M509 is above average in sugar per acre due to its high tonnage potential, but M509 is among the lowest sugar per ton varieties on the Approved list. M509 also has average Rhizoctonia root rot scores and average Aphanomyces scores. An in-furrow or post-emerge fungicide application for Rhizoctonia suppression would be a good program with M509. ACH Seeds reports that M509 has good Fusarium tolerance.

**Crystal M821 (Cercospora Specialty Variety):** Crystal M821 is both a Test Market Approved Variety as well as a CLS Specialty Approved Variety for 2020. M821 has been tested for two years in the SMBSC Official Trials and has a CLS rating of 3.8 to qualify for CLS Specialty Approval. In the yield trials, M821 has average sugar per ton and slightly below average sugar per acre. M821 has a good Aphanomyces rating in the two year disease nursery rating. In the Rhizoctonia nursery, M821 has shown variable ratings in the past two seasons. Care should be taken in placing this variety until more is known about M821's tolerance to Rhizoctonia. An in-furrow or post-emerge fungicide application for Rhizoctonia suppression would be a good program with M821. ACH reports that M821 has Fusarium and root aphid resistance.

**Crystal M837 (Cercospora Specialty Variety):** Crystal M837 is both a Test Market Approved Variety as well as a CLS Specialty Approved Variety for 2020. M837 has a 3.9 CLS rating in the two year disease nursery data qualifying it for CLS Specialty Approval. M837 has above average sugar per ton and average sugar per acre potential. M837 also possessed above average tolerance to Aphanomyces according to the two year nursery data. Rhizoctonia ratings are weaker than average. An in-furrow or post-emerge fungicide application for Rhizoctonia suppression would be a good program with M837. ACH reports that M821 has Fusarium and root aphid resistance.

## **2020 Specialty Approved Varieties (cont'd):**

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.

**Hilleshog 2219 (Cercospora Specialty Variety):** Hilleshog 2219 has a two year CLS rating of 4.0 in the OVT CLS nurseries which qualifies it as a CLS Specialty Variety for 2020. In the Rhizoctonia nurseries, 2219 also has stronger than average ratings for this disease. 2219 is weaker than average on Aphanomyces. The Official Trial yield data show 2219 to have average sugar per ton, but below average sugar per acre potential.

**Maribo MA801 (Cercospora Specialty Variety):** Maribo MA801 has a two year CLS rating of 3.7 in the OVT CLS nurseries which qualifies it as a CLS Specialty Variety for 2020. Official Trial yield data indicate MA801 has average sugar per ton potential and below average sugar per acre. Rhizoctonia root rot ratings are average with MA801, however Aphanomyces ratings are weaker than average.

**SV 881 (Cercospora Specialty Variety):** SV 881 is both a Test Market Approved Variety as well as a CLS Specialty Approved Variety for 2020. Official Trial yield data show SV 881 to be near the average of the approved varieties for sugar per ton and sugar per acre. SV 881 had strong performance in the 2019 SMBSC Variety Strip Trials. The two year CLS nursery data rating for SV 881 is a 3.8 which qualifies for Cercospora Specialty Approval for 2020. The two year Rhizoctonia nursery rating for 881 is stronger than average at a 3.8 and the Aphanomyces rating is average at a 4.4 rating.

**SV RR862 (Cercospora Specialty Variety):** SV RR862 was a Cercospora Specialty variety in 2019 planted on 4,200 acres. In the 2017-2019 Official Yield Trials, RR862 had near average sugar per ton and sugar per acre. Two year Cercospora leafspot scores for RR862 are 3.8 which place it in the Cercospora Specialty Approval category. In addition to stronger performance on Cercospora leafspot, RR862 has better than average Rhizoctonia root rot scores. RR862 has near average ratings on Aphanomyces root rot.

**SV RR863 (Cercospora Specialty Variety):** SV RR863 was a Cercospora Specialty Variety in 2019 planted on 15,000 acres. In the 2017-2019 Official Trials, RR863 had near average sugar per ton and sugar per acre. RR863 performed strongly in the 2019 SMBSC Variety Strip Trials. Two year Cercospora leafspot ratings for RR863 are 3.8 which place RR863 on the Cercospora Specialty Approval category for 2020. In addition to stronger performance on Cercospora leafspot, RR863 has better than average Rhizoctonia root rot scores. RR863 is near average on Aphanomyces root rot ratings.