

# SMBSC OBSERVATIONS FOR 2023 VARIETIES

This document is 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 2023. This summary was compiled to provide another tool to help your variety selection for the 2023 crop.

Neil Olson                      Mark Bloomquist  
 Production Agronomist      Research Director

## CY23 Seed Selection Matrix

Variety	ESTESA	% Revenue per Ton*	% Revenue per Acre*	Aphanomyces Root Rot	Cercospora	Rhizoctonia Root Rot	Rhizomania	Root Aphid	Fusarium
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### Fully Approved Varieties

Beta 9044	759.1	107.1	103.5	4.7	4.1	3.9			
Beta 9098	727.1	98.4	100.9	4.8	2.1	4.6			
Crystal M002	726.8	98.1	100.9	4.6	1.8	4.3			
Crystal M028	755.3	105.7	103.3	4.4	3.8	4.1			
Hilleshog 2327	702.4	96.6	97.8	4.3	4.0	3.8			
Hilleshog 2379	700.1	98.4	97.1	4.3	4.1	4.0			
SV 881	712.4	98.1	98.9	4.4	4.0	3.9			
SV RR863	703.7	97.5	97.8	4.3	4.0	3.6			

### Test Market Varieties

Beta 9088	746.9	103.9	102.5	4.7	4.3	4.0			
Beta 9124	781.2	103.5	107.2	5.0	2.4	4.4			
Beta 9131	771.2	101.9	106.3	4.8	2.1	3.5			
Beta 9155	735.5	95.1	102.3	4.1	2.6	3.4			
Crystal M106	783.3	103.0	107.7	3.9	4.0	3.8			
Crystal M168	744.9	100.8	102.8	4.3	2.1	4.3			
Hilleshog 2395	690.0	95.7	96.2	4.6	4.3	4.2			
Hilleshog 2398	692.7	98.1	96.1	4.6	3.8	4.0			
Hilleshog 2399	674.3	94.9	94.1	5.0	4.3	4.0			

### Aphanomyces and Rhizoctonia Specialty Varieties

Crystal M089	730.3	94.4	102.0	4.1	2.3	3.5			
Crystal M977	762.8	96.8	106.1	3.9	4.5	3.4			

### Last Year Sales

Beta 9986	714.6	92.4	100.1	4.5	2.1	4.0			
SV 883	668.9	95.5	93.3	4.8	3.8	3.6			
SV RR862	653.8	95.1	91.2	4.7	3.5	3.7			

Dark Green = Better than average
Lime Green= Slightly above average
Yellow = Near Average
Orange=Slightly below average
Red = Weaker than average

\*Calculations are done by averaging both revenue metrics of the 8 fully approved varieties and calculating the percent of the mean for each variety against the mean of the Fully Approved. Calculations were done using the Oct. 21, 2022 payment final for the 2021 crop.

All data is from **TWO YEARS of testing: 2021 and 2022.**

# **2023 FULL APPROVAL VARIETIES**

## **Beta 9044:**

Beta 9044 makes Full Approval for CY23 after being tested in the SMBSC trials for three seasons. 9044 was used in 7.6% of the planted acres for the 2022 crop year. 9044 has above average sugar per ton and sugar per acre, in 3 year data. Of all the varieties approved for sale, 9044 has the highest sugar per ton available on 3 year data. An aggressive CLS fungicide program is recommended with 9044 due to weaker than average tolerance to CLS. 9044 has weaker than average tolerance to Aphanomyces and slightly above average tolerance to Rhizoctonia in three years of testing.

## **Beta 9098:**

Beta 9098 makes Full Approval in CY23. 9098 was a CLS specialty last year and was used in 11.8% of planted acres. 9098 was near average in sugar per ton and above average in sugar per acre in three years of testing. 9098 is a high CLS tolerance variety. In three years of testing, 9098 scored weaker than average on Aphanomyces, so caution should be exercised when placing this variety, and our Agronomic Best Management Practices should be followed to allow 9098 to be a success. Rhizoctonia scores are weaker than average. An in-furrow or post-emerge fungicide application for Rhizoctonia suppression would be recommended with 9098. Betaseed reports that 9098 is tolerant to Fusarium and tolerant to root aphid.

## **Crystal M002:**

Crystal M002 makes Full Approval after being tested at SMBSC for three years. M002 was a CLS specialty last year and was used in 16.1% planted acres. M002 is a high CLS tolerance variety. M002 had weaker than average sugar per ton, but above average sugar per acre in three years data. M002 was average for Aphanomyces and weaker than average for Rhizoctonia. An in-furrow or post-emerge application of fungicide for suppression of Rhizoctonia would be a good program with M002. ACH Seeds indicates that M002 is tolerant to Fusarium and has tolerance to root aphid.

## **Crystal M028:**

Crystal M028 makes Full Approval for CY23 after being tested in the SMBSC trials for three seasons. M028 was used in 7.5% of planted acres last year. M028 has above average sugar per ton and sugar per acre, in 3 year data. M028 has shown slightly above average tolerance to Aphanomyces in three years of testing. M028 is slightly weaker than average on CLS and Rhizoctonia in three years data.

## **Hilleshog 2327:**

Hilleshog 2327 makes Full Approval after being tested for four years in the SMBSC Official Trials. 2327 was used in 8.5% of planted acres last year. 2327 has weaker than average sugar per ton and near average sugar per acre in the three year data. The Aphanomyces score for 2327 is slightly better than average and the Rhizoctonia score is better than average in the three year data. 2327 was weaker than average on CLS in the three year data.

## **Hilleshog 2379:**

Hilleshog 2379 makes Full Approval after being tested in the SMBSC trials for three seasons. 2379 has near average sugar per ton and weaker than average sugar per acre, in 3 year data. 2379 has shown near average tolerance to APH and RHC in three years of testing. 2379 was weaker than average to CLS in the three year data.

## **SV 881:**

SV 881 maintains Full Approval in 2023. Official Trial three year yield data shows SV 881 to be weaker than average on sugar per ton and slightly weaker than average for sugar per acre. 881 has a weaker than average CLS score. SV 881 was average on Aphanomyces and better than average on Rhizoctonia in the three year data.

## **SV RR863:**

SV RR863 maintains Full Approval in 2023. RR863 was used in 12.8% of 2022 planted acres. RR863 has near average sugar per ton and near average sugar per acre. RR863 has weaker than average CLS score. RR863 was average on Aphanomyces and stronger than average on Rhizoctonia ratings.

# **2023 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.

## **Beta 9088:**

Beta 9088 makes approval for test market for CY23 after being tested in the SMBSC trials for three seasons. 9088 has above average sugar per ton and sugar per acre, in 2 year data. 9088 has weaker than average tolerance to CLS and thus an aggressive CLS program is recommended with 9088. 9088 has average tolerance to Rhizoctonia in two years of testing. The Aphanomyces score for 9088 shows it to be weaker than average.

## **Beta 9124:**

Beta 9124 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. 9124 is above the two year average for sugar per ton and sugar per acre. 9124 is a high CLS tolerance variety. 9124 is weaker than the average on Aphanomyces and Rhizoctonia. An in-furrow or post-emergence application of fungicide for Rhizoctonia suppression is recommended.

## **Beta 9131:**

Beta 9131 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. 9131 was better than the 2 year average for sugar per ton and sugar per acre. 9131 is a high CLS tolerance variety. 9131 was better than the two year average on Rhizoctonia. 9131 was weaker than average on Aphanomyces.

## **Beta 9155:**

Beta 9155 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. 9155 was weaker than average on sugar per ton but better than the average for sugar per acre. 9155 is a high CLS tolerance variety. 9155 had better than average scores on CLS, APH, and RHC in the 2 year data.

## **Crystal M106:**

Crystal M106 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. M106 was better than the average on sugar per ton and sugar per acre. M106 was better than the average on Aphanomyces and Rhizoctonia. M106 was weaker than the two year average on CLS.

## **Crystal M168:**

Crystal M168 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. M168 was above average on sugar per ton and sugar per acre. M168 was better than average on Aphanomyces and CLS. M168 was weaker than the two year average on Rhizoctonia and thus an in-furrow or post-emergence application of fungicide for Rhizoctonia suppression is recommended.

## **Hilleshog 2395:**

Hilleshog 2395 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. 2395 was weaker than average on sugar per ton and sugar per acre. 2395 was weaker than average on CLS, APH, and RHC. An aggressive CLS program is recommended with 2395.

## **Hilleshog 2398:**

Hilleshog 2398 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. 2398 was weaker than average on sugar per ton and sugar per acre. 2398 was weaker than average on CLS and APH. 2398 was average on RHC.

## **Hilleshog 2399:**

Hilleshog 2399 makes approval for test market for CY23 after being tested in the SMBSC trials for two seasons. 2399 was weaker than average on sugar per ton and sugar per acre. 2399 was weaker than average on CLS and APH. An aggressive CLS program is recommended with 2399. 2399 was average on RHC.

## **2023 Specialty Approved Varieties:**

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

### **Crystal M089 (Aphanomyces and Rhizoctonia Specialty):**

Crystal M089 was given Aphanomyces and Rhizoctonia Specialty Approval. M089 was used in 7.3% of planted acres last year. M089 has below average sugar per ton and above average sugar per acre, in 2 year data. M089 is stronger on APH than any of the fully approved varieties and is among the best varieties on RHC. M089 is a high CLS tolerance variety.

### **Crystal M977 (Aphanomyces and Rhizoctonia Specialty):**

Crystal M977 was given Aphanomyces and Rhizoctonia Specialty Approval. M977 was used in 7.9% of planted acres last year. M977 was weaker than average on sugar per ton, but above average on sugar per acre. M977 is stronger on APH than any of the Fully Approved varieties and among the best varieties tested for RHC. M977 was weaker than the average on CLS, thus, an aggressive CLS program is recommended. ACH seeds reports that Fusarium tolerance for M977 is moderate and it has good tolerance to root aphid.