SMBSC OBSERVATIONS FOR 2024 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 2024. This summary was compiled to provide another tool to help your variety selection for the 2024 crop.

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	%	% Revenue	% Revenue	Aphanomyces		Rhizoctonia
<u>Varie ty</u>	ESTESA*	per Ton*	per Acre*	Root Rot	Cercospora	Root Rot
Fully Appi	roved Va	rieties				
Crystal M106	102.7	100.9	102.9	3.7	4.0	3.7
Beta 9131	102.1	98.3	101.9	4.4	1.9	2.9
Beta 9124	101.3	99.6	100.3	5.1	2.1	4.4
Crystal M028	100.6	103.2	100.2	4.3	3.8	4.1
Crystal M168	99.2	97.7	99.9	4.4	1.9	4.0
Beta 9044	98.6	104.8	99.2	4.3	4.1	3.7
Beta 9098	95.5	95.7	95.6	5.0	1.9	5.0
Test Mark	et Variet	ies .				
Beta 9284	103.5	103.5	103.1	3.7	4.0	3.3
Beta 9291	97.0	99.3	97.8	4.3	1.6	4.0
Hilleshog 2395	90.5	91.2	89.3	4.8	4.1	4.5
Hilleshog 2398	90.0	93.5	89.5	4.9	3.9	4.2
Hilleshog 2449**	-	-	-	-	-	-
Rhizoctonia						
Beta 9131	102.1	98.3	101.9	4.4	1.9	2.9
Beta 9155	99.1	92.5	98.9	4.3	2.2	3.2
Crystal M089	98.3	89.9	96.8	4.1	2.0	3.6
SV RR863	90.2	92.8	89.1	5.3	3.9	3.6
Aphanomyc	es Special	ty Varieties	<u>s</u>			
	100.3	94.4	100.4	3.6	4.4	3.1
Crystal M977						
Crystal M977 Cercospora	Specialty '	<u>Varieties</u>				
-	Specialty 797.0	Varieties 99.3	97.8	4.3	1.6	4.0
Cercospora	97.0	·	97.8	4.3	1.6	4.0
Cercospora Beta 9291 Last Year of	97.0	·	97.8 89.1	4.3	1.6	3.9
Cercospora Beta 9291 Last Year of Hilleshog 2327	97.0 f Sales	99.3				
Cercospora Beta 9291 Last Year of Hilleshog 2327 Hilleshog 2379	97.0 f Sales 90.1 89.6	99.3	89.1	4.6	4.0	3.9
Cercospora Beta 9291 Last Year of Hilleshog 2327 Hilleshog 2379 Blue = Better than	97.0 f Sales 90.1 89.6 average	99.3	89.1	4.6	4.0	3.9
Cercospora Beta 9291 Last Year of Hilleshog 2327 Hilleshog 2379 Blue = Better than Purple = Slightly al	97.0 f Sales 90.1 89.6 average bove average	99.3	89.1	4.6	4.0	3.9
Cercospora Beta 9291 Last Year of Hilleshog 2327 Hilleshog 2379 Blue = Better than Purple = Slightly al No color = Near A	97.0 f Sales 90.1 89.6 average bove average	99.3	89.1	4.6	4.0	3.9
Cercospora Beta 9291 Last Year of Hilleshog 2327 Hilleshog 2379 Blue = Better than Purple = Slightly al No color = Near A Yellow = Slightly b	97.0 f Sales 90.1 89.6 average bove average average below average	99.3	89.1	4.6	4.0	3.9
Cercospora Beta 9291 Last Year of Hilleshog 2327 Hilleshog 2379 Blue = Better than Purple = Slightly al No color = Near A Yellow = Slightly b Drange = Weaker	97.0 f Sales 90.1 89.6 average bove average average than average	99.3 92.5 95.1	89.1 91.1	4.6	4.0	3.9
Cercospora Beta 9291 Last Year of Hilleshog 2327 Hilleshog 2379 Blue = Better than Purple = Slightly al	97.0 f Sales 90.1 89.6 average bove average verage below average than average done by averagi	99.3 92.5 95.1 95.1	89.1 91.1	4.6 4.8	4.0 4.0	3.9

All data is from TWO YEARS of testing: 2022 and 2023.

2024 FULL APPROVAL VARIETIES

Crystal M106:

Crystal M106 makes Full Approval for CY24 after being tested in the SMBSC trials for three seasons. This was Test Marketed last year and was planted in our strip trials. M106 was planted to 7.1% of our planted acres in CY23. M106 has a smaller canopy compared to other varieties. M106 was better than average in ESTESA, revenue per acre, and slightly better than the average on revenue per ton. M106 was stronger than average for Aphanomyces; slightly stronger than average on Rhizoctonia. M106 is a standard Cercospora tolerance variety, and a full fungicide program is required.

Beta 9131 (Rhizoctonia Specialty):

Beta 9131 makes Full Approval for CY24 after being tested in the SMBSC trials for three seasons. 9131 was better than average for Rhizoctonia and was granted a Rhizoctonia Specialty for CY24. Beta 9131 was Test Marketed last year and in our strip trials. Beta 9131 was planted in 4.3% of our planted acres in CY23. 9131 was better than average for ESTESA, near average for revenue per ton, and slightly above average for revenue per acre. Slightly weaker than average for Aphanomyces. Beta 9131 is a high Cercospora tolerant variety.

Beta 9124:

Beta 9124 makes Full Approval for CY24 after being tested in the SMBSC trials for three seasons. Beta 9124 was Test Marketed last year and in our strip trials. Beta 9124 was planted in 5.1% of our planted acres for CY23. Beta 9124 was slightly above average for ESTESA, near average for revenue per ton, and near average for revenue per acre. Rhizoctonia scores on Beta 9124 were weaker than average. An in-furrow or post-emerge fungicide application for Rhizoctonia suppression would be recommended with Beta 9124. Beta 9124 was weaker than average for Aphanomyces; caution should be exercised when placing this variety, and our Agronomic Best Management Practices should be followed to allow Beta 9124 to be a success. 9124 is a high Cercospora tolerant variety.

Crystal M028:

Crystal M028 maintains Full Approval for CY24 after being tested in the SMBSC trials for four seasons. M028 was planted in 9.3% of our planted acres for CY23. M028 was slightly above average for ESTESA, better than average for revenue per ton, near average for revenue per acre. M028 was near average for Aphanomyces and Rhizoctonia. M028 is a standard Cerospora tolerance variety, and a full fungicide program is required.

Crystal M168:

Crystal M168 makes Full Approval for CY24 after being tested in the SMBSC trials for three seasons. M168 was Test Marketed last year and in our strip trials. M168 was planted in 8.8% of our planted acres for CY23. M168 was near average for ESTESA, slightly below average for revenue per ton, and near average for revenue per acre. M168 is slightly weaker than average for Aphanomyces. M168 was near average for Rhizoctonia. M168 is a high Cercospora tolerant variety.

Beta 9044:

Beta 9044 maintains Full Approval for CY24 after being tested in the SMBSC trials for four seasons. Beta 9044 was planted in 9.0% of our planted acres for CY23. 9044 was near average for ESTESA, better than average for revenue per ton, and near average for revenue per acre. 9044 is near average for Aphanomyces and stronger than average for Rhizoctonia. 9044 is a standard Cercospora tolerance variety, and a full fungicide program is required.

Beta 9098:

Beta 9098 maintains Full Approval in CY24. Beta 9098 was planted in 5.8% of our planted acres for CY23. 9098 was slightly below average for ESTESA, revenue per ton, and revenue per acre. Beta 9098 was weaker than average for Aphanomyces; caution should be exercised when placing this variety, and our Agronomic Best Management Practices should be followed to allow Beta 9098 to be a success. Rhizoctonia scores on Beta 9098 were weaker than average. An in-furrow or post-emerge fungicide application for Rhizoctonia suppression would be recommended with Beta 9098. 9098 is a high Cercospora tolerant variety.

2024 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 9284:

Beta 9284 makes approval for test market for CY24 after being tested in the SMBSC trials for two seasons. Better than average for ESTESA, revenue per ton, and revenue per acre. Beta 9284 was stronger than average for Aphanomyces and Rhizoctonia. 9284 is a standard Cercospora tolerance variety, and a full fungicide program is required.

Beta 9291 (CLS Specialty):

Beta 9291 makes approval for test market for CY24 after being tested in the SMBSC trials for two seasons. 9291 was stronger on CLS than the best of the approved varieties and thus was granted CLS Specialty status for CY24. 9291 was slightly below average for ESTESA, near average for revenue per ton, and slightly below average for revenue per acre. 9291 was near average for Aphanomyces and Rhizoctonia. 9291 is a high Cercospora tolerant variety.

Hilleshog 2395:

Hilleshog 2395 makes approval for test market for CY24 after being tested in the SMBSC trials for three seasons. 2395 was Test Marketed last year and in our strip trials. 2395 was weaker than average for ESTESA, revenue per ton, and revenue 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 CY24 after being tested in the SMBSC trials for three seasons. 2398 was Test Marketed last year and in our strip trials. 2398 was weaker than average on ESTESA, sugar per ton, and sugar per acre. 2398 was weaker than average on APH and near average on RHC. 2398 is slightly weaker than average on CLS and a full fungicide program is required.

Hilleshog 2449:

Hilleshog 2449 makes approval for test market for CY24 using data from 2022 OVT. In 2022, Hilleshog 2449 was better than the average of the 2022 approved varieties for recoverable sugar per acre (RSA) and recoverable sugar per ton (RST). 2449 is weaker than average on Cercospora, and a full fungicide program is required.

2024 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.

Beta 9155 (Rhizoctonia Specialty):

Beta 9155 was stronger than average on Rhizoctonia and was granted a Rhizoctonia Specialty for CY24. Beta 9155 was Test Marketed last year and in our strip trials. Beta 9155 was planted in 7.5% of our CY23 planted acres. 9155 was near average for ESTESA, weaker than average for revenue per ton, near average for revenue per acre. Near average for Aphanomyces. 9155 is a high Cercospora tolerant variety.

Crystal M089 (Rhizoctonia Specialty):

Crystal M089 was stronger than average on Rhizoctonia and granted a Rhizoctonia Specialty Approval. M089 was an APH and RHC specialty last year and planted in 11.2% of CY23 planted acres. M089 was near average for ESTESA, weaker than average for revenue per ton, and slightly below average for revenue per acre. M089 was near average for Aphanomyces. M089 is a high Cercospora tolerant variety.

Crystal M977 (Aphanomyces and Rhizoctonia Specialty):

Crystal M977 was granted an Aphanomyces and Rhizoctonia Specialty Approval for being stronger than the average on Aphanomyces and Rhizoctonia. M977 was planted in 14.4% of CY23 planted acres. M977 is slightly above average for ESTESA, weaker than average for revenue per ton, near average for revenue per acre. An aggressive CLS fungicide program is recommended with Crystal M977 due to weaker than average tolerance to CLS.

SV RR863 (Rhizoctonia Specialty):

SV RR863 was better than average on Rhizoctonia and was granted a Rhizoctonia specialty for CY24. RR863 was planted in 2.6% of CY23's planted acres. RR863 was weaker than average for ESTESA, revenue per ton, and revenue per acre. Weaker than average for Aphanomyces; caution should be exercised when placing this variety, and our Agronomic Best Management Practices should be followed to allow SV RR863 to be a success. RR863 is a standard Cercospora tolerance variety, and a full fungicide program is required.

2024 Last Year of Sales:

Hilleshog 2327:

Hilleshog 2327 drops from Full Approval for CY24. 2327 was planted in 1.7% of CY23's planted acres. 2327 was average for Aphanomyces; caution should be exercised when placing this variety, and our Agronomic Best Management Practices should be followed to allow Hilleshog 2327 to be a success. 2327 is standard Cercospora tolerance variety, and a full fungicide program is required.

Hilleshog 2379:

Hilleshog 2379 drops from Full Approval for CY24. 2379 was weaker than average for ESTESA, slightly below average for revenue per ton, and weaker than average for revenue per acre. Weaker than average for Aphanomyces; caution should be exercised when placing this variety, and our Agronomic Best Management Practices should be followed to allow Hilleshog 2379 to be a success. 2379 was near average on Rhizoctonia. 2379 is standard Cercospora tolerance variety, and a full fungicide program is required.