



Michigan Seed Bulletin

QUALITY THAT GROWS!

DECEMBER 2017

Published by the Michigan Crop Improvement Association–The Official Seed Certifying Agency

New Race of Anthracnose Identified In Northeastern Michigan

A new race of Anthracnose called Race 109, has been identified in several fields in Alcona County, Michigan this fall. This new strain of anthracnose was found in black bean fields of Zenith. While Zorro is known to be susceptible to common Michigan races of Anthracnose, up until this point, Zenith has been resistant to all previously known Michigan races, especially the most common strain, Race 73 to which Zorro is susceptible. The new strain, race 109, has not been identified in Michigan prior to this year but has been earlier documented in Manitoba. It is likely this new strain of the disease was introduced to the region in 2015 from non-certified seed brought in from Canada due to a seed shortage that year.

Anthracnose can be a devastating disease in dry bean production but can be managed and disasters can be mitigated as long as growers take the proper precautions. It will be important going forward to take proper steps to halt the spread of this disease, which is very mobile on infected seed. All current commercial bean varieties are susceptible to race 109.

The following practices should be followed and shared with your bean growers to prevent further spreading of this disease. Since Anthracnose is a “seed-borne” disease, it is very important that growers **DO NOT PLANT BIN RUN SEED**, especially bin run seed from the affected area. Also, Anthracnose can remain viable in infected bean seed for at least five years, so planting “saved seed” that may be infected is just not a risk worth taking. So far, only fields in Alcona County have been identified as harboring this new race of Anthracnose. Keeping the disease isolated to one county can be achieved as long as growers **do not move infected seed** to other areas. Purchase and plant **ONLY CERTIFIED SEED**, which is field inspected and lab tested to ensure seed is clean of disease at planting. Crop rotation of at least three

years, preferably four, between dry-bean planting can be an effective method of decreasing the risk of contracting this disease. Anthracnose can survive on plant debris in the soil for at least 22 months, so a two year rotation is not long enough to kill the inoculum present in soil and debris. Chemical sprays have proven to be a very effective way to control the disease in growing beans. Timing, rates and chemistry are important factors in the control of Anthracnose. Please consult your local agronomists to make sure you are properly applying sprays at the proper time.

Resistance to this new race has already been identified and will be incorporated into new varieties in the near future. Until then, following the steps outlined above will be a good place to start in stopping this potentially devastating disease from spreading to the larger production areas in Michigan.

Sharing these tips with your neighbor and seed customers will also be very helpful. For further explanation or specific questions on this situation, please contact the MCIA office.



MCIA

Updates Computer Program

MCIA has updated its crop data program. MCIA customers will need to get a new password to access your field and lab information on-line. If you haven't set up a user name and password yet, just contact the MCIA office and we will get you set up to access your results. For customers using MCIA field inspection services, there is an on-line field application form that can be used to apply for your field inspections. We will still be issuing a paper field report form, but in the future we will be able to have inspectors enter results in the field and e-mail field reports to the customers. There is also an on-line tag ordering feature that send your request for tags to MCIA lab personnel. The MCIA web site address is www.michcrop.com.

SEED LAB NEWS

By Tina Robinson

Occasionally, we will get customers with questions regarding the "Right" test for the seed sample they send in for testing and "When should I use this Test, and what do the results mean?"

WARM GERMINATION - The Warm Germination test is used to calculate the seedlings ability to produce a normal plant under favorable conditions. Results are reported as a percentage, which represents the number of seedlings categorized as normal out of the 400 seeds tested. All Certified Seed Tagging requires a warm germination. During analysis, we will record the number of normal and dead seedlings. A good warm germ result is considered 90% or higher. The germination percent is needed when tagging and labeling your seed. All mixtures submitted for testing will first be separated out by component and planted. The warm germination schedule is all based on the seed being tested. For example, Soybean and Corn will require 7 days. Small grains will require a Pre-Chill of up to 5 days to break dormancy in the seed followed by a 7 day germination period. Some vegetables and grasses can take up to 30 days to germinate.

COLD TEST - The Cold test is a stress test which simulates cold, wet planting conditions and is an indicator of seed vigor. High Vigor seed will germinate, emerge and grow well. Low Vigor seed will

not germinate or will have a slower germination and growth in response to the stress of the cold. This test is commonly used for corn, beans and soybeans. The lower the cold test germination, the less vigorous the seed. There is not a Cold Test for small grains.

ACCELERATED AGING - The AA test is used to estimate potential field emergence, storability and seed vigor. Corn, soybean, beans and grains age in the higher temperature/high humidity chamber for 72 hours. After the stress to the seed is applied, the seedling is then planted in the warm germinator for the normal time. Results are reported as a percentage, which represents the number of seedlings categorized as "Normal". During analysis, we record the number of Normal, Abnormal and Dead Seed.

TETRAZOLIUM - This TZ test provides an estimate of seed viability in a short amount of time. The TZ test will identify problems associated with damage due to mechanical, insect, freeze, heat, seed coat checking and sprouting. This test is commonly used on soybeans, wheat, oats, rye and barley. We call this the "Overnight" test, however it will not give us an indication if molds are present in the seed lot. The potential germination result is reported as a percentage based on "Viable" seeds found.

PURITY ANALYSIS - The Purity test is to determine what proportion of the seed sample is Pure Crop and what is Inert matter, Weed seed and Other Crop. The sample is examined for the presence of noxious weed as well. We will indicate on your lab report all weed seeds found (if any) in the sample provided. The Varietal Purity is completed as a "Visual" test on soybean, whereas the Hilum Colors are separated out and weighed. A purity test is only performed on seed that has been conditioned.

SEED TREATMENT - Many customers submit seed with treatment already applied. When filling out your seed bag, it is important we know what treatment has been applied. This is not only for our safety, but it necessary to know when disposing the extra seed.

AMOUNT TO SUBMIT FOR TESTING - Please make sure you are putting enough seed in your sample bag for the testing you are wanting. Corn, Soybean and Beans require 500 grams for a Seed Count and another 500 grams for a Purity Test. A Canadian Purity requires 1000 grams. I tell our customers to always send in at least 5 pounds of seed if you need all tests to complete certification.

MCIA Performs New Field Service

By Chris Tiedje

It has always been MCIA's role to assist the Michigan Seed Industry in bringing new varieties and technology to Michigan producers. As new technology evolves, MCIA strives to assist where it is most useful. In 2017 MCIA worked with industry to perform daily inspections in seed corn production fields. Seed corn production is an intense, dynamic process during the pollination window. Fields are routinely managed to rogue unwanted plants and detassel seed parents to achieve hybrid purity. Because plant development, field drainage, and field fertility are not uniform – equipment and human resources are not 100% effective in one pass in a seed corn field. Fields need to be constantly monitored to look for escapes and later developing plants which might threaten hybrid purity. Thorough inspection, a good understanding of corn development, and good communication are important components of the management process.

The daily visits to seed fields by MCIA inspectors offered several benefits. MCIA inspectors were able to work directly with company coordinators to supply information necessary for them to make field management decisions. Information collected was specific for the individual company requirements. This information was inputted directly into company data systems. Finally, all fields inspected were eligible for certification as they were inspected by MCIA inspectors.

Seed corn inspections are one of the inspections offered by MCIA. If you are interested in seed production and interested in becoming a seed inspector, feel free to contact Chris Tiedje at MCIA (517/332-3546). Teachers, students, and retirees are great candidates.

2017 MCIA MEMBERSHIP MEETING

The 2017 MCIA membership meeting is scheduled for March 16, 2018 at the Okemos Conference Center in Okemos, MI. The annual meeting will begin at 8:00 a.m. An educational session will follow the annual meeting and will conclude with Lunch. Members will receive registration forms in late January.

FOUNDATION WHEAT SALES

Foundation winter wheat sales were down slightly from last year. The following is a summary of foundation seed sales over the past two years.

Red Wheat Units Sold

	<u>2016</u>	<u>2017</u>
Hopewell	454	212
MCIA Harpoon	380	440
MCIA Red Devil	1144	1475
MCIA Red Dragon	2812	1563
MCIA Whale	1475	1018
Sunburst	2200	1280
Starburst	120	1096
TOTAL	8585	7084

White Wheat Units Sold

	<u>2016</u>	<u>2017</u>
AC Mountain	1915	1482
Jupiter	4555	5403
E 5024	200	0
E 6012	726	640
MCIA Venus	85	185
TOTAL	7481	7710

MCIA Resurfaces Parking Lot and Driveway

This past June, MCIA had its entire parking lot resurfaced by Superior Asphalt.





Michigan Crop Improvement Association
P.O. Box 21008
Lansing, MI 48909

PRSRT STD.
Nonprofit Org.
U.S. Postage
PAID
Ithaca, MI
Permit #35

NOXIOUS WEED SEED FREE FORAGE AND MULCH

Michigan Crop Improvement Association is offering this service through the North American Weed Management Association (NAWMA) as an additional service to our members. Potential markets include customers seeking certified noxious weed seed free hay or contractors using straw mulch for road construction erosion control projects. With this program the association inspects a field prior to each cutting to verify that weed seed on a specified weed list is not present in the field.

For more information contact the MCIA office. We currently have three producer of certified noxious weed seed free mulch.

King Farms	Schoolcraft County	906-341-5837
Murphy Farms	Livingston County	517-223-3853
Ken Landsburg	Sanilac County	810-404-9161

MICHIGAN CROP IMPROVEMENT ASSN.

CALENDAR OF EVENTS

DATE	EVENT	LOCATION
Dec. 23 - Jan. 2	Christmas and New Year	<i>MCIA Office Closed</i>
Jan. 8 - 10	Michigan AgriBusiness Assn. Winter Conference Trade Show	<i>Lansing Center - Lansing, MI</i>
Feb. 15	Early Foundation Seed Order Form Due	<i>MCIA Office</i>
Mar. 16	MCIA Annual Membership Meeting	<i>Okemos Conference Center Okemos, MI</i>