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What's New in Plant Pathology

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What's New in Plant Pathology

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Extension Plant Pathology Team Update

There have been some changes in our team over the last year. Below is a listing of Extension Plant Pathology Team members and their responsibilities.

- Loren Giesler, Extension Specialist – UNL Lincoln Campus. Diseases in soybean and turf and extension team leader.
- Robert Harveson, Extension Specialist – UNL Panhandle Research and Extension Center (Scottsbluff, NE). Diseases in specialty crops, including chickpeas, dry beans, sugar beet, sunflower, etc. (all crops outside of corn, forages, small grains, sorghum and soybean).
- Tamra Jackson-Ziems, Extension Specialist – UNL Lincoln Campus. Diseases in corn and sorghum.
- Kevin Korus, Extension Educator-Plant Pathology - UNL Lincoln Campus. Coordinator of the Plant & Pest Diagnostic Clinic and diseases of trees and backyard fruits and vegetables.
- Tony Adesemoye, Extension Specialist – West Central Research and Extension Center (North Platte, NE). Cropping systems soilborne pathogens and integrated management of diseases.
- Stephen Wegulo, Extension Specialist – UNL Lincoln Campus. Diseases in forages, ornamentals and small grains.

Changes to the Plant Disease Management Section of the 2015 Weed Guide

During the past year, several new products have become available for disease management. These products and additional products have been added to the Plant Disease Management Section of the 2015 Weed Guide. Products added to the Weed Guide have been summarized in Tables 1-3. Additional updates have also been made to the Plant Disease Management Section. For example, you will note that the Product Efficacy tables for corn, soybean, and wheat have been replaced with new efficacy tables. These tables were summarized by regional committees of plant pathologists from across the country that contributed the results of multiple locations of fungicide trials across several states. These new efficacy tables represent a consensus among numerous plant pathologists based on multi-state field trials and results published as technical reports on the American Phytopathological Society's website as Plant Disease Management Reports. In addition, both the efficacy tables and the product tables for every crop have been reorganized and sorted by mode of action. This change was made to raise awareness about product active ingredients and their classes/modes of action. This change will make it easier to compare and select products when rotating modes of action and reduce the selection pressure on pathogens that could potentially lead to fungicide resistance.

Table 1. Foliar Products

Trade Name	Active Ingredient(s)	Fungicide Class	Labeled Crops
Affiance	azoxystrobin (9.35%) + tetraconazole (7.48%)	Mixed MoA	Corn, soybean
Approach Prima	picoxystrobin (17.94%) + cyproconazole (7.17%)	Mixed MoA	Corn, soybean, wheat
Badge SC	copper oxychloride (16.81%) + copper hydroxide (15.36 %)	Inorganics	Corn, dry bean, sugarbeet
Bumper 41.8 EC	propiconazole (41.8%)	DMI Triazoles	Corn, soybean, wheat
Bumper ES	propiconazole (40.85%)	DMI Triazoles	Soybean, wheat
Champ	copper hydroxide (37.5%)	Inorganics	Dry bean, sugarbeet, wheat
Eminent VP	tetraconazole (11.6%)	DMI Triazoles	Sugarbeet
Evito 480 SC	flouxastrobin (40.3%)	QoI Strobilurins	Corn
Evito T	flouxastrobin (18.0%) + tebuconazole (25.0%)	Mixed MoA	Wheat
Headline SC	pyraclostrobin (23.3%)	QoI Strobilurins	Dry bean, sorghum, soybean, sugarbeet, sunflower, wheat
Kocide 2000	copper hydroxide (53.8%)	Inorganics	Corn, dry bean
Quadris	azoxystrobin (22.9%)	QoI Strobilurins	Sugarbeet
Quadris Opti	azoxystrobin (4.6%) + chlorothalonil (46.0%)		Dry bean
Quadris Top SB	azoxystrobin (18.2%) + difenoconazole (11.4%)	Mixed MoA	Soybean
Quilt Xcel	azoxystrobin (13.5%) + propiconazole (11.7%)	Mixed MoA	Sorghum
Topsin 4.5 FL	thiophanate-methyl (45.0%)	MBC Thiophanates	Dry bean, soybean
Topsin M 70WP	thiophanate-methyl (70.0%)	MBC Thiophanates	Soybean
Topsin M WSB	thiophanate-methyl (70.0%)	MBC Thiophanates	Dry bean, soybean
Topsin XTR	thiophanate-methyl (37.5%) + tebuconazole (7.5%)	Mixed MoA	Soybean

Table 2. Seed Treatment Products

Trade Name	Active Ingredient(s)	Fungicide Class	Labeled Crops
Acceleron DX-109	pyraclostrobin (18.4%)	QoI Strobilurins	Soybean
Acceleron DX-309	metalaxyl (28.35%)	PA Acylalanines	Soybean
Acceleron DX-612	fluxapyroxad (28.7%)	SDHI Carboxamides	Soybean
Allegiance Dry	metalaxyl (12.5%)	PA Acylalanines	Soybean, Wheat
Allegiance LS	metalaxyl (17.7%)	PA Acylalanines	Soybean, Wheat
ApronMaxx RTA + Moly	mefenoxam (1.02%) + fludioxonil (0.68%)	Mixed MoA	Soybean
Bean Guard/Allegiance	carboxin (12.5%) + metalaxyl (3.75%) + captan (24.45%)	Mixed MoA	Soybean
Charter F ²	triticonazole (1.32%) + metalaxyl (0.79%)	Mixed MoA	Wheat
Dithane F-45 Rainshield	mancozeb (37.0%)	Dithiocarbamates	Wheat
Dyna-Shield Fludioxonil	fludioxonil (40.3%)	Phenylpyrroles	Wheat
Dyna-Shield Metalaxyl	metalaxyl (28.35%)	PA Acylalanines	Wheat
Dyna-Shield Metalaxyl 318 FS	metalaxyl (30.14%)	PA Acylalanines	Wheat
Dyna-Shield Small Grains	tebuconazole (0.48%) + metalaxyl (0.64%)	Mixed MoA	Wheat
Penncozeb 75DF	mancozeb (75.0%)	Dithiocarbamates	Wheat
Penncozeb 80WP	mancozeb (80.0%)	Dithiocarbamates	Wheat
Protector-L-Allegiance	thiram (14.29%) + metalaxyl (1.61%)	Mixed MoA	Soybean
Raxil 2.6F	tebuconazole (28.3%)	DMI Triazoles	Wheat
Warden CX	thiamethoxam (20.0%) + mefenoxam (5.99%) + fludioxonil (1.0%) + sedaxane (1.0%)	Mixed MoA	Soybean

Table 3. Seed Treatment Nematicides

Trade Name	Active Ingredient(s)	Labeled Crops
Avicta 500 FS	abamectin (46.3%)	Soybean
Avicta Complete Beans 500	abamectin (22.2%) + thiamethoxam (11.1%) + mefenoxam (1.67%) + fludioxonil (0.55%)	Soybean
Avicta Complete Corn 250	thiamethoxam (11.7%) + abamectin (10.3%) + thiabendazole (2.34%) + fludioxonil (0.3%) + mefenoxam (0.23%) + azoxystrobin (0.12%)	Corn (field, popcorn, seed, sweet)
Avicta Complete Corn 500	thiamethoxam (23.1%) + abamectin (10.2%) + thiabendazole (2.31%) + fludioxonil (0.3%) + mefenoxam (0.23%) + azoxystrobin (0.12%)	Corn (field, popcorn, seed, sweet)
Avicta Duo Corn	abamectin (12.4%) + thiamethoxam (28.1%)	Corn (field, popcorn, seed, sweet)