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What's New in Plant Pathology

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Changes to the Disease Management section of the 2016 Guide for Weed, Disease, and Insect Management in Nebraska

During the past year, several new products have become available for disease management. These products and additional changes have been added or made to the Plant Disease Management Section of the 2016 Guide for Weed, Disease, and Insect Management in Nebraska. Products added to the Weed Guide have been summarized in Tables 1 and 2. Additional updates have also been made to the Plant Disease Management Section. For example, you will now find a table listing Biological Products for Crop Disease Management. In addition, last year we began and have continued to sort and list fungicide products in both the efficacy tables and the product tables by their 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. Be sure to note that products with "Mixed Modes of Action" are listed at the end of each table.

Biological control Products

This year, a new table (page 251) titled 'Biological Products for Crop Disease Management' was added to the Guide for Weed, Disease, and Insect

Management in Nebraska. This contains many products that are based on biology and summary information on such products is provided on that page.

Trivapro™ Fungicide

In 2015 Syngenta registered a new fungicide called Trivapro™ for use on wheat, corn, and soybean. This product combines three modes of action that include Solatenol, a succinate dehydrogenase inhibitor (SDHI), azoxystrobin and propiconazole. According to the manufacturer, Trivapro will provide broad-spectrum control of many diseases including common rust, Southern rust and gray leaf spot in corn; septoria leaf and glume blotch, leaf rust, stripe rust and stem rust in wheat; and anthracnose, alternaria leaf spot, brown spot, cercospora blight and leaf spot, frogeye leaf spot, pod and stem blight, powdery mildew and rust in soybean.

Priaxor D Fungicide

This fungicide by BASF with EPA registration number 7969-361 became available in the 2015 season for better management of pathogens that may be resistant to fungicides, such as frogeye leaf spot in soybean where it is recommended for application at R3 stage. In addition to fluxapyroxad and pyraclostrobin which are active ingredients in Priaxor, this new product also contains tetraconazole, a sterol biosynthesis inhibitor. The product can be used with soybean, corn and small grains.

Table 1. Foliar products for disease control that were updated in the 2016 Guide for Weed, in Nebraska.

Trade Name	Active Ingredient(s)	Fungicide Class	Change(s) Made
Absolute Maxx	tebuconazole (22.63%) + trifloxystrobin (22.63%)	Mixed Modes of Action	Added to the Corn table
Fortix	fluoxastrobin (14.8%) + flutriafol (19.3%)	Mixed Modes of Action	Added to Wheat table
Propulse	fluopyram (17.4%) + prothioconazole (17.4%)	Mixed Modes of Action	Added to Dry bean and Sugarbeet tables
Prosaro	prothioconazole (19.0%) + tebuconazole (19.0%)	DMI Triazoles Group 3	Added to the Corn table
Quilt	azoxystrobin (7.0%) + propiconazole (11.7%)	Mixed Modes of Action	In Soybean can be applied up to R6 (full seed)
Topguard	flutriafol (11.8%)	DMI Triazoles Group 3	Added to Sorghum and

Table 2. Seed treatment products for disease control that were updated in the 2016 Guide for Weed, Disease, and Insect Management in Nebraska.

Trade Name	Active Ingredient(s)	Fungicide Class	Change(s) Made
Cruiser Maxx Vibrance	thiamethoxam (20.8%) + mefenoxam (3.13%) + fludioxonil (1.04%) + sedaxane (1.04%)	Mixed Modes of Action	Added to Soybean table
ILeVO	fluopyram (48.4%)	SDHI Carboxamides	Added to Soybean table
Inovate Pro	clothianidin (24.03%) + ipconazole (1.203%) + metalaxyl (0.965%)	Mixed Modes of Action	Added to Soybean table
Intego Suite Soybeans	clothianidin (20.0%) + ethaboxam (2.97%) + ipconazole (0.99%) + metalaxyl (0.79%)	Mixed Modes of Action	Added to Soybean table
Mertect 340-F	thiabendazole (42.3%)	MBC Benzimidazoles Group 1	Added to Wheat table
Rancona Crest	ipconazole (0.421%) + metalaxyl (0.562%) + imidacloprid (14.100%)	Mixed Modes of Action	Added to Wheat table
Rancona Pinnacle	ipconazole (0.434%) + metalaxyl (0.579%)	Mixed Modes of Action	Added to Wheat table
Rancona V 100 Pro FS	carboxin (35.52%) + ipconazole (2.22%)	Mixed Modes of Action	Added to Wheat table
Rancona V RTU FS	carboxin (12.58%) + metalaxyl (1.26%) + ipconazole (0.47%)	Mixed Modes of Action	Added to Wheat table

Table 3. Seed treatment nematicide product that was updated in the 2016 Guide for Weed, Disease, and Insect Management in Nebraska.

Trade Name	Active Ingredient(s)	Change(s) Made
Clariva pn	<i>Pasteuria nishizawae</i> – Pn1 (15%)	Sugarbeet was added as a labeled Registered Nebraska crop