



ETHOS[®] XB

INSECTICIDE / FUNGICIDE

Protect your seed investment and plant stand from early season insect and fungal root nibblers with the dual action of Ethos[®] XB Insecticide/Fungicide

What is Ethos XB Insecticide/Fungicide? combines the proven insect control of Capture[®] LFR[®] Insecticide with a proven, labeled biological fungicide.

What are the benefits? Plant stand protection and uniform emergence in multiple soil conditions including adverse conditions like cool wet soils, poorly drained areas, no-till production systems or cover crop systems with high residue and increased pest pressure. The superior LFR[®] formulation provides easy mixing and uniform application. Same use rate as Capture LFR[®] insecticide with the advantage of a broad spectrum fungicide.

How does disease protection work?

- Exclusion – colonizes the growing root system forming a protective biofilm which acts as a *defensive barrier against pathogens*.
- Antifungal metabolites – forms lipopeptides during product fermentation, spore germination and root colonization.

What is the use rate and spectrum?

Pests	Row Width		
	30"	20"	15"
Corn Rootworm Larvae and Suppression of Seedling Disease caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> or <i>Phytophthora</i>	8.5 fl oz./Acre	12.8 fl oz./Acre	17 fl oz./Acre
Seedling Pests (wireworm, grubs, cutworms, seed corn maggot, seed corn beetle, sugar cane beetle) and Suppression of Seedling Disease caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> or <i>Phytophthora</i>	4 fl oz./Acre	6 fl oz./Acre	8 fl oz./Acre

What are the performance results?

- Average 1250 plants/acre and 8.8 bushel/acre increase vs all comparison treatments across 73 and 28 locations, respectively.
- Additional 1883 plants/acre and 6.9 bushel/acre increase vs Capture LFR[®] Insecticide across 30 and 8 locations, respectively.

Inside This Issue

- ✓ Ethos[®] XB Insecticide/Fungicide
 - Stand Protection
 - Label Expansion
- ✓ Corn Weed Control Programs
 - Early Preplant burndown
 - 1 Pass Systems
 - 2 Pass Systems

NE Technical Service Representative
Chris Leon
 (601) 927-9410
christopher.leon@fmc.com

Contact your local FMC Marketing Manager for more information

Michael Myers
 (717) 304-8957
michael.myers@fmc.com

Tyler Williams
 (270) 403-1467
tyler.williams@fmc.com

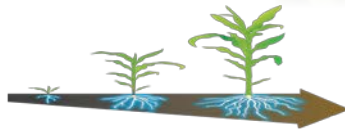
FMC

HatchTrakSM

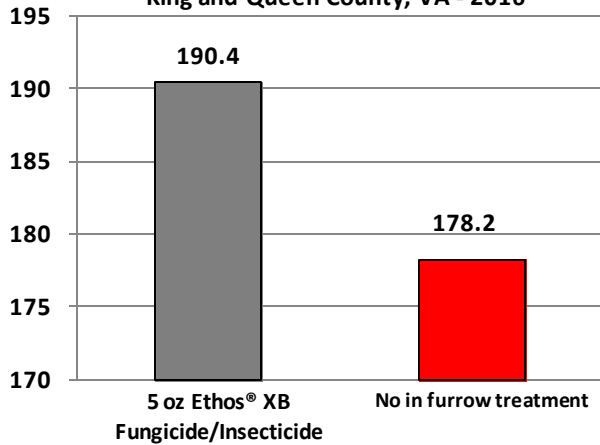


ETHOS^{XB}

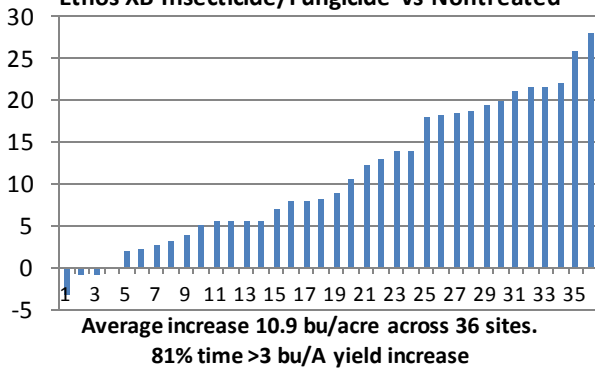
INSECTICIDE / FUNGICIDE



On Farm Corn Yield
King and Queen County, VA - 2016



2016 On Farm Yield Results
Ethos XB Insecticide/Fungicide vs Nontreated



Side by side field trial – Western Missouri 2016

ETHOS^{XB} LFR

INSECTICIDE / FUNGICIDE

Untreated

ETHOS^{XB} LFR

INSECTICIDE / FUNGICIDE

Untreated





ETHOS[®] XB

INSECTICIDE / FUNGICIDE

The 2017 use season will mark the first full year of **label expansion** for Ethos[®] XB insecticide/fungicide. New crops include soybean, dried beans and peas, succulent peas and beans and potatoes.

Soybean Use Rates and Pests

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound bifenthrin/acre
Rootworm larvae	6.8 - 8.5	0.39 - 0.49	0.08 - 0.1
Wireworm Grape colaspis Grubs Root maggot Seedcorn maggot Army cutworm Cutworm species True armyworm Armyworm species Seed corn beetle	3.4 - 8.5	0.2 - 0.49	0.04 - 0.1
*Suppression of "Damping off," seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, or Phytophthora			

Bean and Pea Use Rates and Pests

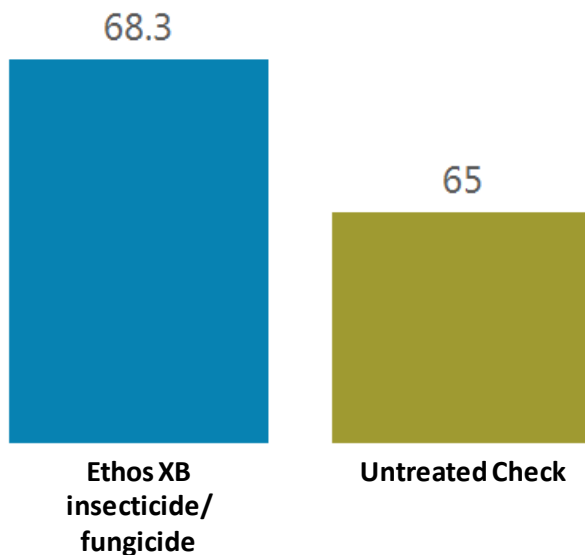
PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound bifenthrin/acre
Wireworm Grape colaspis Grubs Root maggot Seedcorn maggot Army cutworm Cutworm species True armyworm Armyworm species	3.4 - 8.5	0.2 - 0.49	0.04 - 0.1
*Suppression of "Damping off," seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, or Phytophthora			

Potato Use Rates and Pests

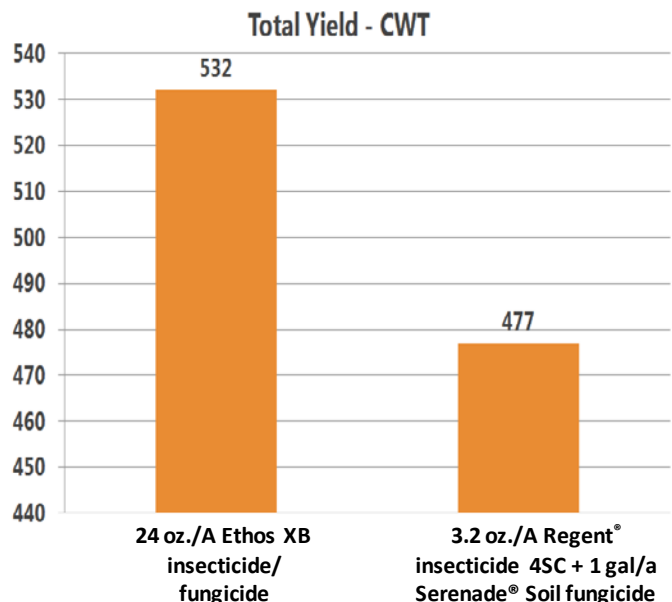
PEST	USE RATES	
	Fluid oz/acre	Pound bifenthrin/acre
Wireworms Grape colaspis White grub Sweet potato flea beetle Rootworms	12.75 - 25.5	0.15 - 0.3
*Suppression of "Damping off," seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, or Phytophthora		



Ethos XB Insecticide/Fungicide Soybean Yield Results 3 locations - 2016



Ethos XB - Reardon, WA - Potatoes Large Plot Trial*



*Data consists of four replicated 20 ft digs in each treatment

HatchTrakSM



Anthem[®] MAXX Herbicide 3 - 4 oz./A



Anthem[®] ATZ herbicide 1.5 - 2.5 pt./A

Benefits of Anthem[®] Brand Herbicides

- ✓ Flexible application timing – 45 days prior to planting up to 4 leaf corn
- ✓ Easy to handle and mix liquid formulation
- ✓ Anthem MAXX is twice the concentration of Anthem herbicide resulting in lower product application rate which equates to less container handling and disposal
- ✓ Extended residual – soil half life 12 – 14 days longer than dimethenamid and s-metolachlor
- ✓ Burndown control of small broadleaves with superior grass and small seeded broadleaf residual control

Anthem[®] Herbicide Early Preplant Burndown Programs

An early burndown herbicide application can reduce grower stress and early season weed competition stress in the early stages of the production season when time is limited with lots of acres to cover. Additional benefits may be realized by removing alternate insect pest host plants that serve as bridges for cutworms, thrips, plant bugs, etc to develop on prior to crop emergence.

- Anthem ATZ herbicide 2 pt./A + Balance[®] Flexx herbicide 2 - 3 oz./A – common ragweed fields
- For Anthem MAXX herbicide applications 14+ days prior to planting, use the or 4 oz./A Anthem MAXX herbicide or 2 - 2.5 pt./A Anthem ATZ herbicide. For light, sandy soils use 3 – 3.5 oz./A Anthem MAXX herbicide or 1.5 – 1.75 pt./A Anthem ATZ herbicide.
- Add 1pt./A 2,4-D or 4 – 8 oz./A dicamba and/or glyphosate herbicide for total burndown of emerged weeds in no-till systems
- Excellent mixing with 28% or 32% UAN solutions
- No known interactions with at-plant insecticides



Anthem ATZ herbicide 2pt./A +
2,4-D 16 oz./A + Glyphosate 1 lb
ae/a + COC 1% v/v + AMS 8.5
lb/100 GAL



Lexar[®] herbicide 3 qt/a
PRE



Anthem ATZ herbicide 2 pt./A +
Balance Flexx herbicide 2 oz./A
PRE

Two Pass Programs

1st Pass PRE Herbicide Program

- Anthem MAXX herbicide @ 3 - 4 oz./Acre
 - Atrazine @ 0.5 – 1.0 lb/acre
- or
- Anthem ATZ herbicide @ 28 – 32 oz./Acre

Additional No-Till / Burndown tank-mix partners

- 2,4-D + Glyphosate+ Aim[®] EC herbicide 1.0 - 1.5 oz./Acre
- or
- Glufosinate Herbicide

2nd Pass POST Herbicide Program (< 4" Weeds)

- Solstice[®] herbicide 2.75 - 3.15 oz./Acre (up to V8 corn)
 - If Anthem[®] MAXX herbicide 4 oz./Acre is applied PRE, max. use rate for Solstice herbicide is 2.9 oz./Acre POST
- or
- Solstice herbicide 2.75 oz./Acre + Atrazine 0.5 – 1.0 lb/acre – up to 12" corn
- or
- Cadet[®] herbicide 0.6 oz./Acre - 48" corn (NO Residual Control Provided)
- plus
- Glyphosate or Glufosinate at local rates with respective seed technology traits

HatchTrakSM



One Pass PRE Programs

- Anthem[®] MAXX herbicide @ 4 oz./Acre
- Atrazine @ 1.0 – 2.0 lb/acre
- Balance[®] Flexx Herbicide @ 2 - 4 oz./Acre or Hornet[®] herbicide @ 3 oz./Acre

No-Till / Burndown tank-mix partners at local burndown rates:

- 2,4-D + Glyphosate + Aim[®] EC herbicide 1.0 - 1.5 oz./Acre
or
- Glufosinate

One Pass Early POST Programs (< 4" Weeds but Prior to 12" Corn)

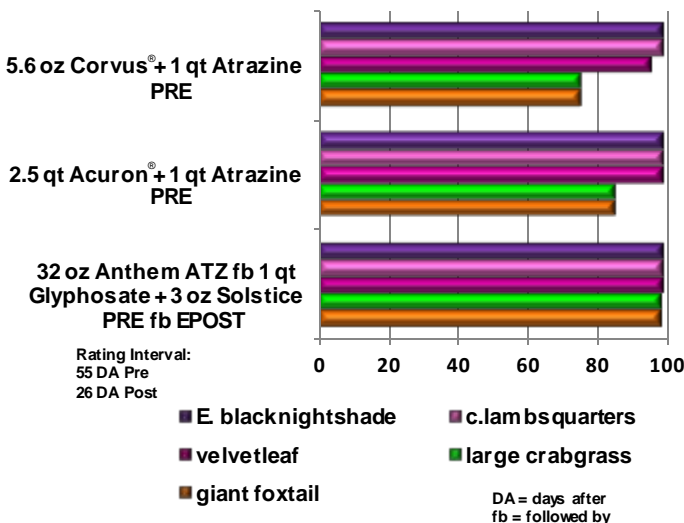
- Anthem MAXX herbicide* 3 - 4 oz
- Atrazine 1.0 – 2.0 lb/acre
- Glyphosate or Glufosinate (at recommended rates)
or
- Anthem MAXX herbicide @ 2.2 oz./Acre
- Solstice[®] herbicide @ 2.75 oz./Acre
- Atrazine @ 0.5 - 1.5 lb/acre
- Glyphosate or Glufosinate (at recommended rates)

Reduced Input Early POST for low-moderate weed pressure (< 4" Weeds but Prior to 12" Corn)

- Solstice herbicide @ 3.15 oz./Acre
- Atrazine @ 1.0 – 2.0 lb/acre
- Glyphosate or Glufosinate (at recommended rates)
Weaker on grass residual (esp. large seeded grasses - fall panicum, et al.)

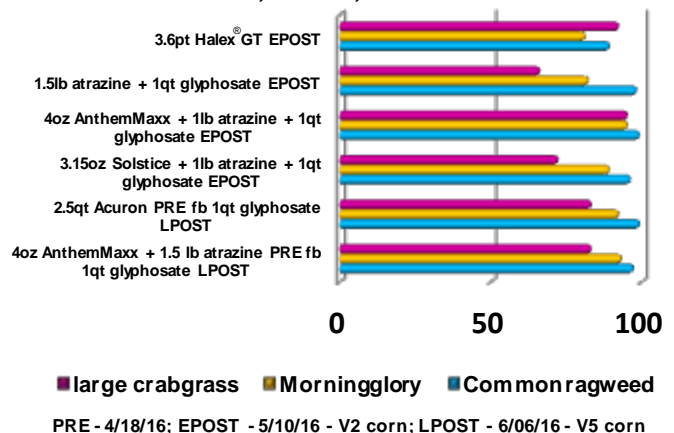
2016 Corn Trial Results

Single Pass vs Two Pass Programs
Dr. Bill Curran – PSU – 2015



Single Pass - Early vs Late POST Program Comparison
Charlie Cahoon, Painter, VA – 2016

Rating Interval:
92 DA EPOST
65 DA LPOST



- Both one pass PRE programs failed to provide season long grass control.
- The two pass program with overlapping grass and broadleaf residual controlled all weeds present at least 97%.

- Across early post (EPOST) programs, the combination of Anthem MAXX herbicide, atrazine and glyphosate provided the best weed control and was also the most consistent for EPOST vs late (LPOST) weed control programs.
- Anthem MAXX herbicide + atrazine fb glyphosate was comparable to the Acuron fb glyphosate PRE fb LPOST program.



888-59-FMC-AG FMCCROP.COM

Always read and follow label directions. NOTE REGARDING RESTRICTED USE PESTICIDES: Anthem ATZ herbicide; Athena insecticide, Brigade 2EC Insecticide/Miticide, Brigade WSB Insecticide/Miticide, Brigadier Insecticide Capture 3RIVE 3D insecticide, Capture LFR Insecticide, Declare insecticide, Hero Insecticide, Mustang Insecticide, Mustang Maxx Insecticide, Pounce 25WP Insecticide, Stallion Brand Insecticide, Temity LFR Insecticide/Fungicide, Triple Crown Insecticide, Ethos XB Insecticide/Fungicide and Gladiator Insecticide/Miticide are **Restricted Use Pesticides**. NOTE FOR CALIFORNIA: Accurate Extra herbicide, Aim herbicide, Aim EC herbicide, Aim EW herbicide, Anthem herbicide, Anthem ATZ herbicide, Anthem Flex herbicide, Anthem MAXX herbicide, Authority Assist herbicide, Authority Elite herbicide, Authority First DF herbicide, Authority MAXX herbicide, Authority MTZ DF herbicide, Authority XL herbicide, Cadet herbicide, Chisum Herbicide, Command 3ME microencapsulated herbicide, Crusher Herbicide, Edition Broadspec herbicide, Edition Tankmix Herbicide, Marvel herbicide, Nimble Herbicide, Nuance Herbicide, Preemptor SC fungicide, Report Extra Herbicide, Solstice herbicide, Spartan 4F herbicide, Spartan Charge herbicide, Spartan Elite herbicide, Temity LFR Insecticide/Fungicide, Topguard EQ fungicide, Zeus Prime XC herbicide, Zeus XC herbicide, Capture 3RIVE 3D insecticide, Ethos XB Insecticide/Fungicide, Hero Insecticide, Mustang Maxx Insecticide, Display cotton harvest aid, Zoro Miticide and VGR Soil Amendment **are not registered for sale or use in California**. VGR Soil Amendment is not a pesticide. Beleaf and Carbine are trademarks of Ishihara Sangyo Kaisha, Ltd. Cercobin is a trademark of Nippon Soda Co., LTD. Sovran is a registered trademark of BASF. FMC, 3RIVE 3D, Accurate, Aim, Anthem, Athena, Authority, Brigade, Brigadier, Cadet, Capture, Chisum, Command, Crusher, Declare, Display, Edition, Ethos, Preemptor, Fracture, Fyfanon, Gladiator, Hero, Koverall, LFR, Marvel, Mustang, Nimble, Obey, Pounce, Report, Rhyme, Rovral, Shark, Solida, Solstice, Spartan, Stallion, Temity, Topguard, Topguard Terra, VGR and Zeus are trademarks and HatchTrak and Investing in farming's future are service marks of FMC Corporation or an affiliate. ©2016 FMC Corporation. All rights reserved. 11/16

Atrazine, Anthem ATZ, Capture LFR and Ethos XB are Restricted Use Pesticides. Balance, Corvus, and Serenade are registered trademarks of Bayer CropScience. Acuron, Lexar, and Halex are registered trademarks of Syngenta Crop Protection. Regent is a registered trademark of BASF Ag Products. Hornet is a registered trademark of Dow AgroSciences.