

# CROP PROTECTION PRODUCTS OUTLOOK: INSECTICIDES AND FUNGICIDES

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## Introduction

This paper is an expansion and update of Carter (1995) and will focus on the status of new and future products, as well as any label modifications for pending or already registered products. If additional information is required, please contact the company directly, since I will present only brief information due to time and space limitations. The name, manufacturer, class, registration status, and activity of products are listed in Table 1.

## Insecticide Products

There are a number of promising new experimental products and partially registered insecticides which are discussed in Tables 2 through 21.

## Fungicide Products

New fungicides are shown in Tables 22 through 26.

## Summary

The cotton industry appears to be blessed with a series of new insecticides, fungicides, and mixtures coming into widespread use within the next 2-4 years. The advantages of many of these new products are their specificity, lower toxicity, and less risk to the environment, and they are effective for our most devastating cotton insects and diseases.

## References

1. Carter, F. L. 1995. Crop protection products outlook: insecticides and fungicides, pp. 19-21. Proc. Beltwide Cotton Prod. Conf.

**Table 1.** New experimental products and/or registration update for cotton insecticides and fungicides.

Insecticides:		Fungicides:
Applaud	Pirate	Dithane
CGA 215944	Proclaim	Folicur
Confirm	Pyriproxyfen	NuFlow M
Decis	RH 2485	Rovral
Decoy	SAN 420	Start
Fenoxycarb	Sirene	
Fipronil	Spinosad	
Furadan	Spod-X	
Gemstar	Striker	
Naturalis	Vydate	

**Table 2. APPLAUD**

Other Names:	buprofezin
Company:	AgrEvo
Class:	Thiadiazinone
Status:	Possible section 18 for Arizona in 1996; expect full registration in 1999.
Activity:	Whiteflies

**Table 3. CGA 215944**

Other Names:	pymetrozine; Fulfil (proposed trade name)
Company:	Ciba
Class:	IGR (affects salivary pump)
Status:	In full development; no submission to EPA; 2-4 years from full registration
Activity:	Aphids and whiteflies

**Table 4. CONFIRM**

Other Names:	RH-5992
Company:	Rohm & Haas
Class:	IGR (mimics molting hormone)
Status:	Full package to EPA March 1996; Section 18 in 1996; full 1997.
Activity:	Caterpillars

**Table 5. DECIS 1.5EC**

Other Names:	deltamethrin; NRDC 161; RU 22974
Company:	AgrEvo
Class:	Pyrethroid
Status:	Expect USEPA Registration for 1996
Activity:	Pyrethroid

**Table 6. DECOY®**

Other Names:	none
Company:	biosys
Class:	Mating disruptant
Status:	Decoy® PBW Beads -- registered sprayable product; Decoy® PBW Bands -- hand-placed device registered for 1996; Decoy® PBW Micro -- sprayable product available in 1996.
Activity:	Pink bollworm

**Table 7. FENOXYCARB**

Other Names:	Award, Logic, Precision
Company:	Ciba
Class:	IGR
Status:	In full development; no submission to EPA; full registration 2-3 years.
Activity:	Part of management program for aphids and whiteflies with CGA-215944

**Table 8. FIPRONIL**

Other Names:	Regent
Company:	Rhone-Poulenc
Class:	Phenyl pyrazole -- new chemistry
Status:	Filed in late 1995 for EUP on 3,360 acres in 1996; full registration package submitted to EPA in mid-1996; hope for approval in 1998.
Activity:	Thrips, plant bugs, boll weevils

**Table 9. FURADAN**

Other Names:	Carbofuran
Company:	FMC
Class:	Carbamate
Status:	Submitted complete package 2nd quarter 1995 for Section 3 Federal label; pending; company hopeful for full registration or definite Section 18 in 1996.
Activity:	Cotton aphids

**Table 10. GEMSTAR™ LC**

Other Names:	none
Company:	biosys
Class:	Baculovirus
Status:	Full registration in 1996, except California (to be submitted).
Activity:	Bollworm/budworm

**Table 11. NATURALIS®**

Other Names:	Naturalis® - L
Company:	Troy Biosciences, Inc.
Class:	Biological insecticide (Fungus)
Status:	Full registration expected March 1996.
Activity:	All major cotton pests except PBW.

**Table 12. PIRATE**

Other Names:	AC-303630; Alert (2 lb/gal) West of Rockies
Company:	American Cyanamid
Class:	Pyroles; new class and mode of action
Status:	Registration submitted with additional data December 1995; expect Section 18 in 1996; full registration expected 1997.
Activity:	Caterpillars, mites

**Table 13. PROCLAIM**

Other Names:	Emamectin benzoate, MK-244
Company:	Merck Research Laboratories
Class:	Avermectins
Status:	In field testing; complete package submitted December 1996.
Activity:	Stomach poison for Lepidoptera

**Table 14. PYRIPROXYFEN**

Other Names:	V71639; KNACK, Nylar
Company:	Valent
Class:	IGR; juvenile hormone mimic
Status:	Package submitted; Section 18 anticipated 1996-1997
Activity:	Whiteflies

**Table 15. RH-2485**

Other Names:	Intrepid
Company:	Rohm & Haas
Class:	IGR -- mimics molting hormone
Status:	Additional field testing; likely request to EPA for crop destruct EUP in 1996; fully registered in 1998.
Activity:	Caterpillars (beet armyworm, bollworm/budworm, etc.)

**Table 16. SAN 420**

Other Names:	none
Company:	Sandoz
Class:	<i>Bacillus thuringiensis</i>
Status:	Fully registered on cotton for 1996
Activity:	Lepidoptera larvae--best on bollworm, budworm, and loopers; beet armyworm at higher rates

**Table 17. SIRENE**

Other Names:	none
Company:	Ciba
Class:	Insecticide/Pheromone mix
Status:	No decision on U.S. development; tested in Egypt and Brazil.
Activity:	Sprayable attract and kill for pink bollworm

**Table 18. SPINOSAD**

Other Names:	XDE-105
Company:	Dow Elanco
Class:	Spinosyns -- derived through fermentation
Status:	Full registration submitted; expect in 1997; for 1996 -- up to 48,000-acre EUP.
Activity:	Lepidopterous larvae; very safe.

**Table 19. SPOD-X® LC**

Other Names:	none
Company:	biosys
Class:	Baculovirus
Status:	Registered in 1995; California pending
Activity:	Beet armyworm

**Table 20. STRIKER 1.0 EC**

Other Names:	none
Company:	AgrEvo
Class:	Pyrethroid mixture
Status:	Registered 1995; no plans to market in 1996
Activity:	Pyrethroid

**Table 21. VYDATE**

Other Names:	Oxamyl, DPX 1410
Company:	DuPont
Class:	Carbamate
Status:	Label change -- added reniform nematode control; 2 appl. (0.25 lb AI/A) at phs and 14 days later.
Activity:	Reniform nematode; plus boll weevil and plant bugs.

**Table 22. DITHANE**

Other Names:	Nabam; Mancozeb
Company:	Rohm & Haas
Class:	Carbamate
Status:	24C Reg. in AR; LA; MS; expect full by 1998.
Activity:	Seedling disease complex in-furrow at planting.

**Table 23. FOLICUR**

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Other Names:	Raxil
Company:	Bayer
Class:	Triazole
Status:	No submission to EPA before 1997.
Activity:	Systemic fungicide

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**Table 24. NUFLOW M**

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Other Names:	myclobutamil; Systhane
Company:	Rohm & Haas
Class:	Propanenitrile
Status:	Fully registered in summer 1995.
Activity:	Seed treatment for <i>Rhizoctonia</i> and <i>Thielaviopsis</i> .

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**Table 25. ROVRAL**

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Other Names:	Iprodione; 26019 RP
Company:	Rhone-Poulenc
Class:	Carboxamide
Status:	Requested extension of EUP for 1996; anticipating full registration in 1996.
Activity:	<i>Rhizoctonia</i> seedling disease; at planting.

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**Table 26. START 15G**

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Other Names:	none
Company:	Rhone-Poulenc
Class:	Alliette/Rovral Combination
Status:	Requested extension of EUP for 1996 testing; hope for full registration by 1997; a 60% WDG formulation for in-furrow spray use uncertain.
Activity:	Seedling disease complex at planting.

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