



Texas Agricultural Extension Service - District 11

INSECTS AND WEEDS IN FOCUS

Rt. 2 Box 589, Corpus Christi, TX 78406-9704

ROY D. PARKER
EXTENSION ENTOMOLOGIST
PHONE: 361-265-9203

JOHN E. BREMER
EXTENSION WEED SPECIALIST
PHONE: 361-265-9203

Web site: <http://entowww.tamu.edu/>

<http://agfacts.tamu.edu/~rparker>

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ENTO/WS

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- TEXAS GULF COAST GRAIN HANDLERS CONFERENCE
- COASTAL BEND EXTENSION IPM PROGRAM ENDS
- ADAGE LABELED FOR COTTON & SORGHUM
- STEWARD FOLIAR INSECTICIDE LABELED FOR COTTON
- BOLL WEEVIL ERADICATION PROGRESS
- NEW EXECUTIVE DIRECTOR FOR TPMA
- NEW HERBICIDE REGISTRATION
- INTERESTING INSECTS

- 01:00-01:30 Safety Equipment Used in Grain Bin Rescue (IPM Scouts) - **Bryan Shaw**
- 01:30-02:00 Grain Dust Explosions, Air Quality & Regulations - **Calvin Parnell**
- 02:00-02:15 Break
- 02:15-02:45 Texas Pesticide Applicator Laws & Regulations Update - **Greg Baker**
- 02:45-03:15 Stored Grain Insect Chemical Resistance Management - **Roy Parker**
- 03:15-03:30 Wrap up/CEU Forms/Evaluation - **Benard Mitchell**

TEXAS GULF COAST GRAIN HANDLERS CONFERENCE

The annual Texas Gulf Coast Grain Handlers Conference is scheduled for Monday, January 29 at the Wharton County Fairgrounds at Crescent (Intersection of FM 960 & 961). The agenda for that program is shown below. There is a \$10 per person registration fee which covers meal etc., for those who register by January 24. **Please preregister by January 24 by calling the Colorado County Extension Agent's office at (979)732-2082.** Registration at the door will be \$15. Texas Department of Agriculture pesticide applicator CEU Credit will be available. RDP

- 08:00-08:30 Registration: coffee & donuts
- 08:30-08:40 Conference objectives/moderator - **Rick Jahn**
- 08:40-09:10 Genetically Modified Organisms: Issues & Public Perceptions - **Dan Fromme**
- 09:10-09:40 The Future For Genetically Modified Plants - **Barry Knight**
- 09:40-10:10 Chemical Control of Insects in Stored Grain - **Frank Arthur**
- 10:10-10:30 Break
- 10:30-11:00 Residual Surface Treatments with Cyfluthrin (Tempo) - **Frank Arthur**
- 11:00-11:30 New Label Requirements for Metal Phosphide Fumigants - **Jim Sharpe & Mike McLean**
- 11:30-12:00 Bird & Rodent Control in Stored Grain Facilities - **T.J. Muir**
- 12:00-01:00 Lunch

COASTAL BEND EXTENSION IPM PROGRAM ENDS

A historical overview of the Extension Service/TPMA operated Coastal Bend IPM program was provided in the September 20, 2000 issue of this newsletter. Among other things, the field scouting activities of that program provided early warnings of potential pest outbreaks, field infestation information for this newsletter, pest fax alerts and information for Section 18's. These activities will be noticeably absent.

ADAGE LABELED FOR COTTON & SORGHUM

Adage (Thiomethoxam) insecticide from Syngenta, a seed treatment insecticide for cotton, sorghum and wheat received a federal label last month. Thiamethoxam is a neonicotinoid insecticide with an excellent safety profile. Foliar labels are also expected in 2001. We have tested the seed treatment Adage on cotton and sorghum under south Texas conditions for several years. The entire report is available from my office. Summary tables for a 3 year study (4 tests) on cotton and a sorghum test follow:

Table 1. Thrips numbers, plant damage rating, boll production, lint yield and dollar return from use of systemic insecticide seed and granular treatments on Texas Gulf Coast cotton, 1998-2000.

Treatment (rate)	Thrips ^a no./10 plants	Plant da. rating ^b	Bolls (1000's/acre)		Yield lb lint /acre	Return \$/acre over untreated ^c
			har- vested	no./ lint lb		
Adage 5FS (7.6 oz/cwt seed)	19.7 b	1.28 b	264 a	348 b	807 a	37.72 ^d
Gaicho 280FS (8.0 oz/cwt seed)	22.2 ab	1.80 b	258 a	352 ab	789 a	30.73
Temik 15G (4.0 oz/1000 ft)	16.0 b	1.69 b	264 a	366 a	778 a	22.28
Untreated	31.6 a	3.64 a	236 b	358 ab	706 b	
LSD (P=0.05)	11.64	0.63	21.17	16.07	63.0	
P > F	.0275	.0001	.0168	.0560	.0092	

Means in a column followed by the same letter are not significantly different by ANOVA (LSD).

^a Average no. thrips on 2-5 true leaf cotton.

^b Ratings range from 1 = no damage to 5 = severe stunting and leaf curling.

^c Cotton value based on \$0.60/lb for lint and \$0.05/lb for seed; costs include Gaicho 480FS (\$0.69/lb seed at 5,800 seed/lb) and Temik 15G (\$3.23/lb). Application cost for Temik was calculated at \$0.25/acre. Harvesting/hauling/ginning costs for the extra lint produced above the untreated cotton was set at \$0.21/lb of lint.

^d The cost of Adage was estimated at \$9.75/acre.

Table 2. Chinch bugs, overall insect damage at 45 days after planting, plant population and yield in sorghum treated at-planting with seed and granular insecticide, Walter and Michael Kuck Farm, Lavaca County, TX, 2000.

Treatment/rate	Chinch bugs/10 plants 45 DAP ^a	Insect damage rating ^c	Plant population (1000's/acre)	Yield (lb/acre)	Return \$/acre over untreated ^d
Adage 5FS (5.1 oz/cwt seed)	1.7 a	1.3 b	70.0 a	3852 ab	38.06 ^c
Gaicho 480 FS (8.0 oz/cwt seed)	2.0 a	1.0 b	63.2 a	4123 a	45.22
Counter 20CR (3.49 oz/1000 ft row)	0.0 a	1.7 b	60.9 a	3579 b	30.61
Untreated	5.0 a	4.0 a	32.3 b	2051 c	
LSD (P = 0.05)	NS ^b	1.373	19.77	394.2	
P > F	.1170	.0063	.0140	.0001	

Means in a column followed by the same letter are not significantly different by ANOVA (LSD).

^a DAP = days after planting

^b NS = not statistically significant

^c Overall insect damage ratings range from 1 = no damage to 5 = stunted plants, uneven plant size and reduced plant stands.

^d Sorghum value based on \$3.18/cwt; costs include Gaicho 480FS (\$1.20/cwt seed at 6 lb/acre), Counter 20CR (\$2.60/lb), application cost for Counter of \$0.25/acre and harvesting/hauling extra yield above the untreated sorghum (\$0.65/cwt).

^e Adage cost was estimated at \$1.25/lb of seed at 6 lb/acre in this test. RDP

STEWARD FOLIAR INSECTICIDE LABELED FOR COTTON

Steward insecticide from DuPont Company received federal labeling last month for use on cotton for control of bollworm tobacco budworm, beet armyworm, fall armyworm, cabbage looper, soybean looper, tarnished plant bug and cotton fleahopper. The signal word for the product is "caution" and the product has a good safety profile. We evaluated the product under South Texas conditions with excellent fleahopper and tobacco budworm control results. We did not encounter other labeled pests in our work, nor were tobacco budworm numbers extremely high. A summary table of the 2000 test follows (entire report available from my office):

Table 1. Tobacco budworm damage, mite rating and aphids on DPL 5415 cotton treated with various insecticides, TAES, Nueces County, TX, 2000.

Treatment	5-days after treatment 3				
	Rate lb ai/acre	% da. squares	% da. bolls	mite da. rating ^a	Aphids per leaf
Karate 1E	.03	16.3 b	6.3 b	1.3 b	46.3 a
Leverage 2.75 E	.08	12.5 bc	10.0 a	2.8 a	0.5 g
Tracer 4SC	.06	0.0 g	0.0 c	3.0 a	4.3 fg
Steward 1.25 SC	.075	7.5 cde	2.3 c	3.0 a	15.3 bc
Steward 1.25 SC	.09	6.3 def	2.3 c	2.8 a	13.8 bcd
Denim 0.16E	.0075	11.8 bcd	2.3 c	1.0 b	4.5 fg
Denim 0.16E	.01	2.5 efg	0.0 c	1.0 b	5.5 efg
Untreated		28.8 a	8.8 ab	3.3 a	10.0 c-f

Treated 16, 22 and 28 Jun. ANOVA, LSD 0.05

^a Rating: 1 = none to 5 = severe

RDP

BOLL WEEVIL ERADICATION PROGRESS

There has been a steady decline in boll weevils in the South Texas/Wintergarden Boll Weevil Eradication Zone since the first full season program (1998). Foundation trap counts reflect the same trend we have observed in our trap lines (Table 1) in Nueces and San Patricio counties. Stalk destruction in 2000 was good but not perfect. There was evidence of late season movement into the edge of the southern and northeast boundaries. This spring it should be possible to evaluate whether those boll weevils were able to overwinter within the zone.

RDP

Table 1. Boll weevils/pheromone trap per month, Nueces & San Patricio counties.

Month	6 yr avg ^a	1998	1999	2000
Jan	5.3	0.22	0.22	9.93
Feb	5.5	0.27	0.00	1.60
Mar	7.7	3.00	0.33	1.72
Apr	7.4	30.94	0.00	1.27
May	2.8	22.00	0.00	0.83
Jun	4.9	5.10	0.06	0.67
Jul	188.9	49.50	2.06	11.33
Aug	645.7	48.40	45.00	14.04
Sep	309.7	2.28	40.90	1.39
Oct	165.4	1.39	5.72	0.72
Nov	55.3	0.28	28.3	0.50
Dec	15.7	0.22	13.67	0.03
Avg.	117.9	13.6	11.4	3.67

NEW EXECUTIVE DIRECTOR AT TPMA

Texas Pest Management Association (TPMA) is pleased to announce that David Oefinger has been named as the organizations new Executive Director. He has served as Deputy Executive Director since January, 1998. David was assigned the new responsibilities and duties on December 8, 2000 at a meeting of TPMA's Executive Committee. The previous Executive Director, Mike Wallace, has been named as Coordinator of IPM Foundation Programs. TPMA has on-going important relationships with the National Foundation for IPM Education (NFIPME) and the Texas IPM Foundation (TIPMF).
RDP

NEW HERBICIDE REGISTRATION

It appears that there will be an amendment to the federal label to authorize the use of Linex 4L herbicide on cotton for the control of post-emergent weeds.

LINEX 4L Herbicide was previously labeled for this use, but the use was not supported by DuPont during the reregistration process. The product is now owned by Griffin LLC who chooses to provide this use to growers who need it. With the cancellation

View our newsletter earlier on the internet on the TPMA website (<http://www.tpma.org/>) by selecting "IPM newsletter" on the drop-down menu by going to "Coastal Bend" and "go". Other sites include <http://agfacts.tamu.edu/~rparker> or the Department of Entomology <http://insects.tamu.edu/extension/>. Also pest management information is available at www.txaac.org.

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of the cyanazine (Bladex) registrations, growers need a replacement for post emergence weed control. Therefore, the Texas Department of Agriculture approved a FIFRA Section 24(c) application and assigned Reg. No. TX-000012.

A FIFRA Section 24(c) SLN becomes effective when signed by Assistant Commissioner for Pesticide Programs Donnie Dippel or Deputy Assistant Commissioner Phil Tham. The SLN is sent to EPA for review. EPA has 90 days, as outlined in 40 CFR, to review the SLN. Upon concurrence by EPA, the SLN will remain in effect as long as it is needed.

Field studies are planned for the 2001 season to test the products in effectiveness in South Texas cotton fields. JEB

INTERESTING INSECTS

The insect order Mantodea (Greek meaning a sooth sayer) contain the mantids, commonly called "praying mantids". There are more than 1,500 species in 8 families in the world. In the U.S. and Canada there are only 20 species, all belonging to the family Mantidae. Mantids are large, elongated and rather slow-moving. The prothorax is greatly lengthened, with the front legs modified with strong spines and fitted for grasping prey. Their heads are highly movable and these are the only insects that can "look over their shoulders". Mantids feed on a variety of insects including other mantids. They usually sit in wait for their prey with the front legs in an upraised position (reason for the name "praying mantid"). Mantids are highly touted as biological control agents and are sold to help control pests in gardens. This practice is not recommended because they cannot possibly keep up with populations of damaging insects. They can become a pest especially around beehives. Mantids tend to occur around flowers, and consequently, such insects as pollen or nectar feeders fall prey to them. Honeybees are stated to be the favorite food of some species. They overwinter in the egg stage in cases containing about 200 eggs. Many times their eggs are subject to attack by an insect parasite. RDP



An adult praying mantid