Management & Recovery from Fall Armyworms

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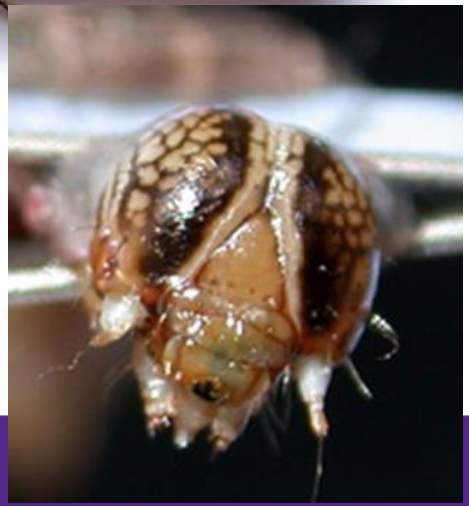
Northeast Area Agronomist

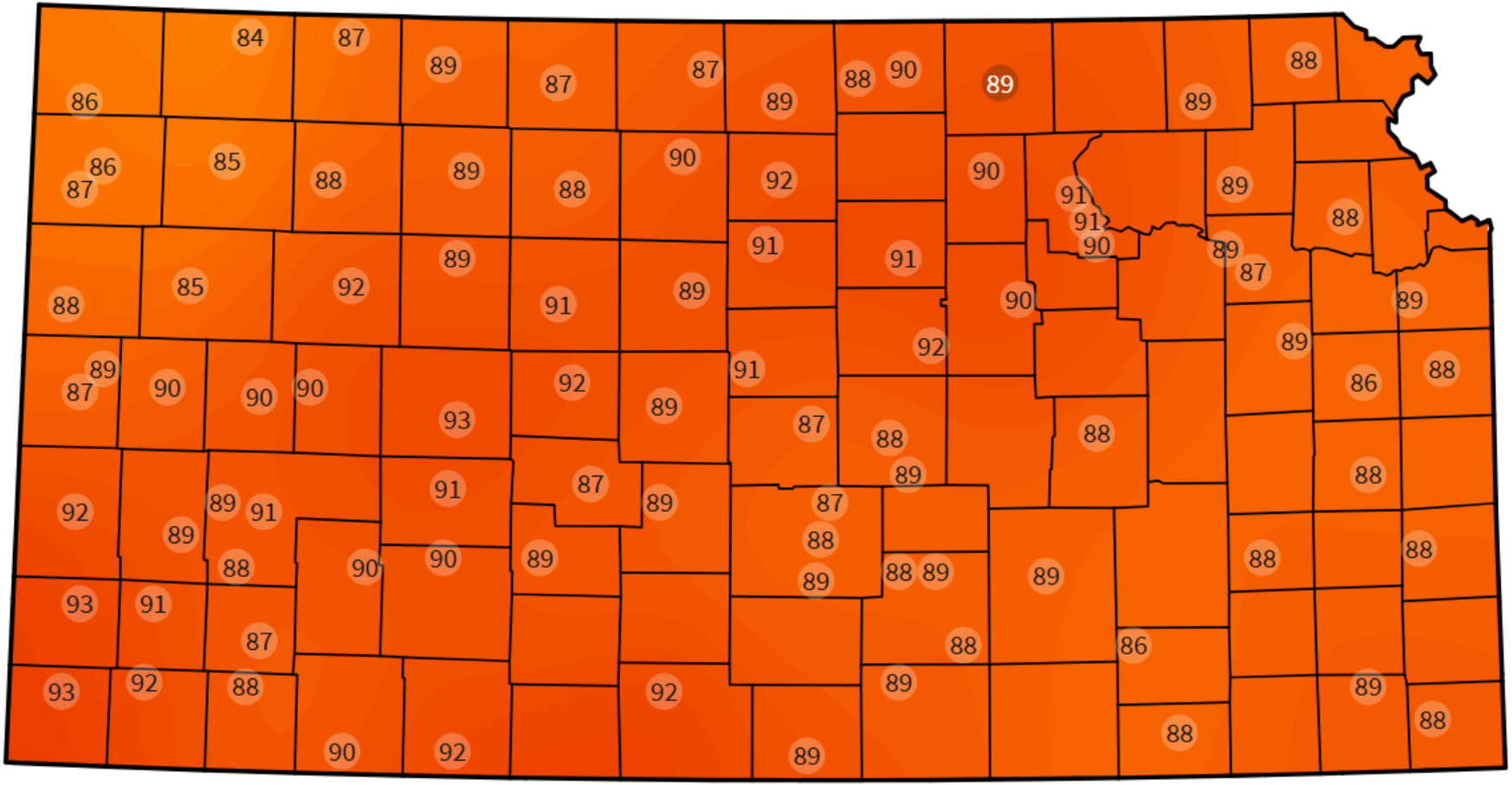
The Crime

The Criminal!



Every Year is Different…

- **Weather patterns play a major role:**
  - Optimal development/reproductive temp 78-86F
  - 55 F minimum for egg and larval growth
  - Larval development declines above 90 F
  - Eggs stop hatching at 100 F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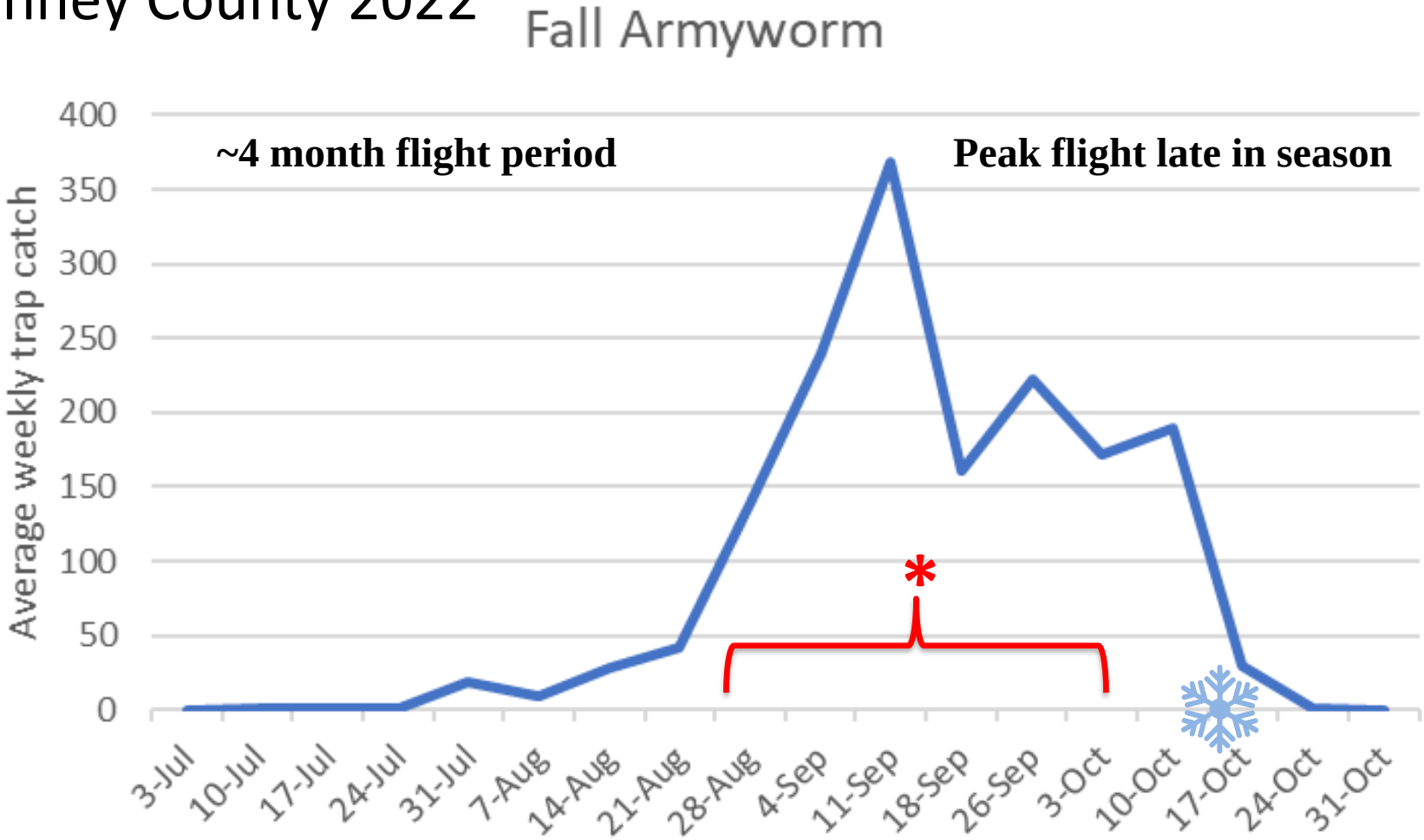
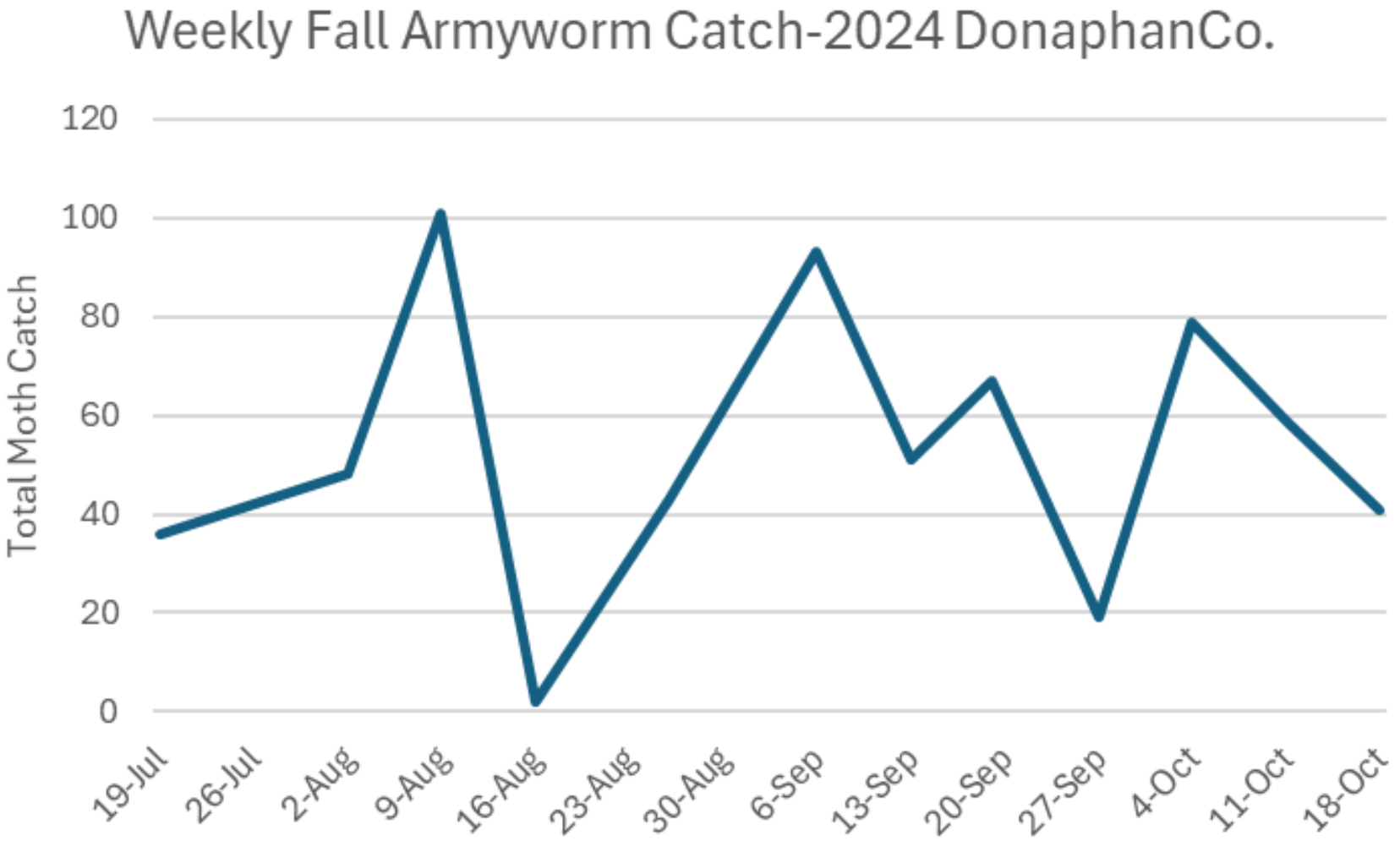
Finney County 2022




Weekly Fall Armyworm Catch-2024 DonaphanCo.
Total Moth Catch
120
100
80
60
40
20
0
19-Jul
26-Jul
2-Aug
9-Aug
16-Aug
23-Aug
30-Aug
6-Sep
13-Sep
20-Sep
27-Sep
4-Oct
11-Oct
18-Oct

How Many is Too Many?

- Alfalfa: 1-2 caterpillars per sqft can destroy seedling alfalfa. 10-15 per sqft can destroy 12” tall plants.
- Corn: Bt corn may prevent ear damage.
- Sorghum: 1-2 larvae/head during flowering to soft dough reduces yield by 5-10%.
- Wheat: If 25-30% of plants show damage, examine the field frequently. Treat at 2-3 active larvae/ft.
- Pasture/Brome: If damage is notable/window-paning, treatment may be warranted with 4 to 5 caterpillars per square foot.

Damage Signs

Fall Armyworm Damage & Weeds

Forages & Fertility – Always Soil Test pH, P, K

	Soil Test Level (ppm P)				
New Stands	Very Low	Low	Medium	High	Very High
Expected Yield (tons/acre)	(0-8)	(9-15)	(16 - 20)	(21 - 30)	(31 or more)
	lb/a P_2O_5				
2	70	35	15	0	0
2.5	75	40	15	0	0
3	80	40	15	0	0
3.5	85	45	15	0	0
4	90	45	15	0	0

	Soil Test Level (ppm P)				
Established Stands	Very Low	Low	Medium	High	Very High
Expected Yield (tons/acre)	(0-8)	(9-15)	(16 - 20)	(21 - 30)	(31 or more)
	lb/a P_2O_5				
2	45	25	15	0	0
3	50	25	15	0	0
4	55	30	15	0	0
5	60	30	15	0	0
6	65	35	15	0	0

N Recommendations – Spring Applications

Expected Yield (tons/acre)	Production (lbs/ac)	New Seedling lb/a N
2	80	20
4	160	20
6	240	20
8	320	20
10	400	20

Non-Chemical Control Options…

- Several braconid wasps and tachinid flies
- Birds, toads, skunks, and some domestic fowl

What About Soap?

Registered products for the control of fall armyworm in Kansas crops

Chemical Name	Trade Name	Mode of Action Class	Alfalfa	Corn	Sorghum	Wheat	Grass Forage/Hay
alpha-cypermethrin	Fastac CS	3A	yes	yes	yes	yes	yes
beta-cyfluthrin	Baythroid XL	3A	yes	yes	yes	yes	yes
bifenthrin	numerous products	3A		yes			yes
biological insecticide	Fawligen	-			yes		
carbaryl	Sevin	1A	yes				yes
chlorantraniliprole	Vantacore	28		yes	yes	yes	yes
cyfluthrin	Tombstone	3A	yes	yes			yes
deltamethrin	Delta Gold	3A		yes	yes		
gamma-cyhalothrin	Proaxis	3A	yes	yes	yes	yes	
indoxacarb	Steward EC	22A		yes			
lambda-cyhalothrin+chlorantraniliprole	Besiege	3A+28	yes	yes			yes
lambda-cyhalothrin	numerous products	3A	yes	yes	yes	yes	yes
methomyl	Lannate	1A	yes	yes	yes		yes*
methoxyfenozide	Intrepid 2F	18			yes		
permethrin	numerous products	3A	yes				
spinosad	Blackhawk	5		yes	yes	yes	yes
zeta-cypermethrin	Mustang MAXX	3A	yes	yes	yes	yes	
zeta-cypermethrin+bifenthrin	Hero	3A		yes			

Concerns with Treatment

Product Example

- Syngenta's Besiege (*lambda-cyhalothrin+chlorantraniliprole)*
- Works by contact, ingestion and ovicidal action
- Rainfast "once dried on plants"
- Grazing limitations; harvest intervals vary

Insecticide Applications…

- Generics running $3-4 per acre
- Application costs $8-12 per acre
- 50 acre field = $550 – 800 per treatment

Reseeding

- Seed: $60 per acre ($3 lb – 20 lbs per acre)
- Planting costs: $22 (Ag Manager)
- 50 acre field: $4,400

Maybe Some Hope…

Sept 2024

May 2025

Questions Received…

- Can it kill the brome *again?*
- Do fall armyworms prefer cool season forages?
- Can I just spray the edges of the field?

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