

Cotton IPM

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Cotton aphid

- Can be present throughout growing season
- Early season (pre-squaring) populations not causing yield loss and too early for sticky cotton



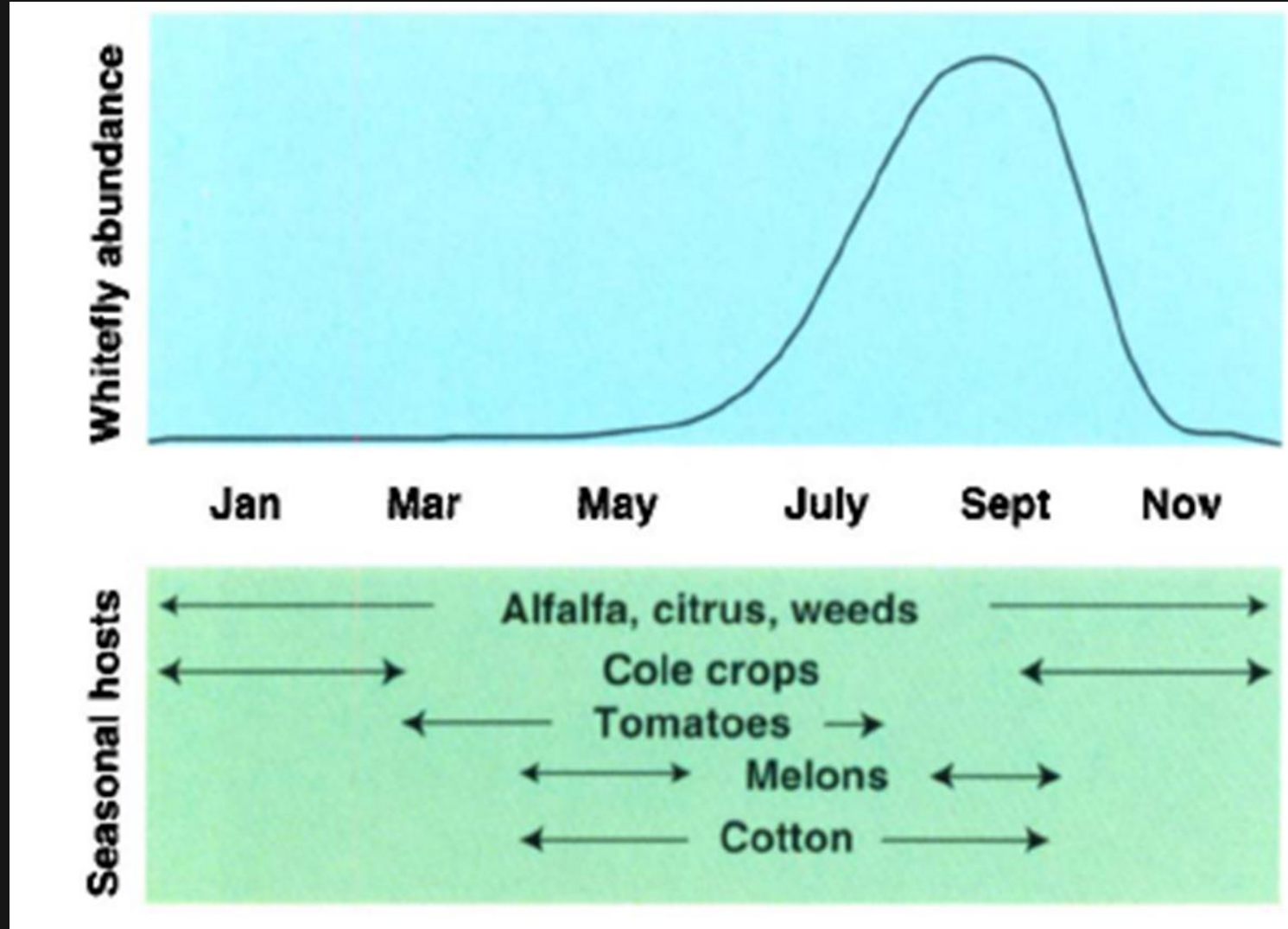
- Biocontrol often “at work” early
- Biocontrol is not instantaneous though

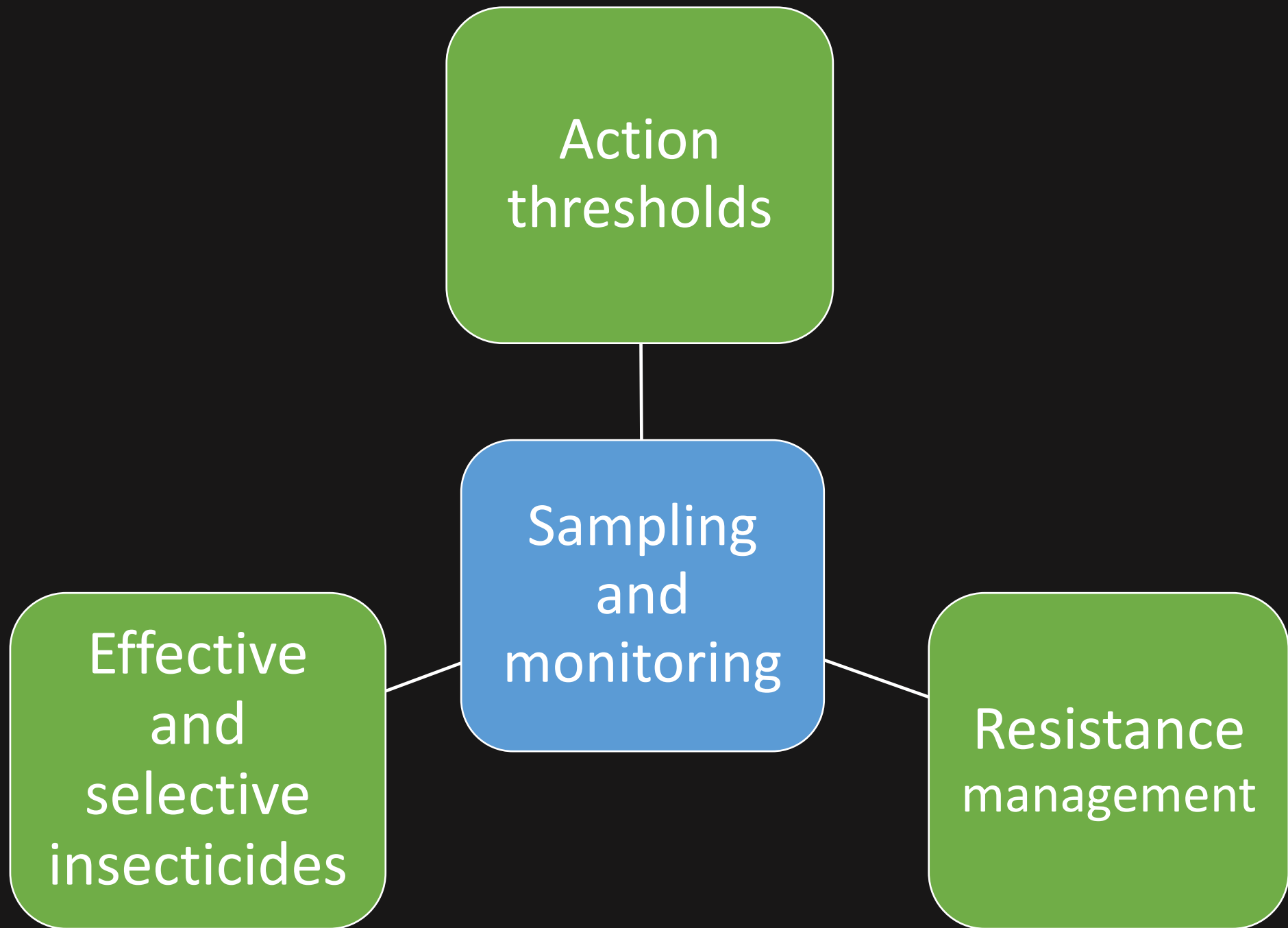


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Silverleaf whitefly dynamics

- Build through season
- Inter-crop movement
- Biocontrol can work





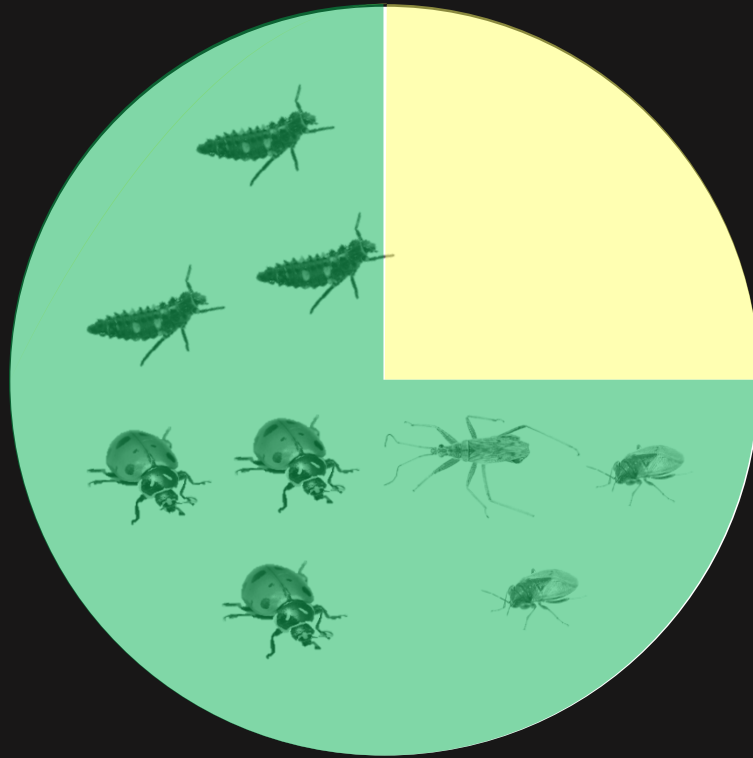
Efficacy

Selectivity

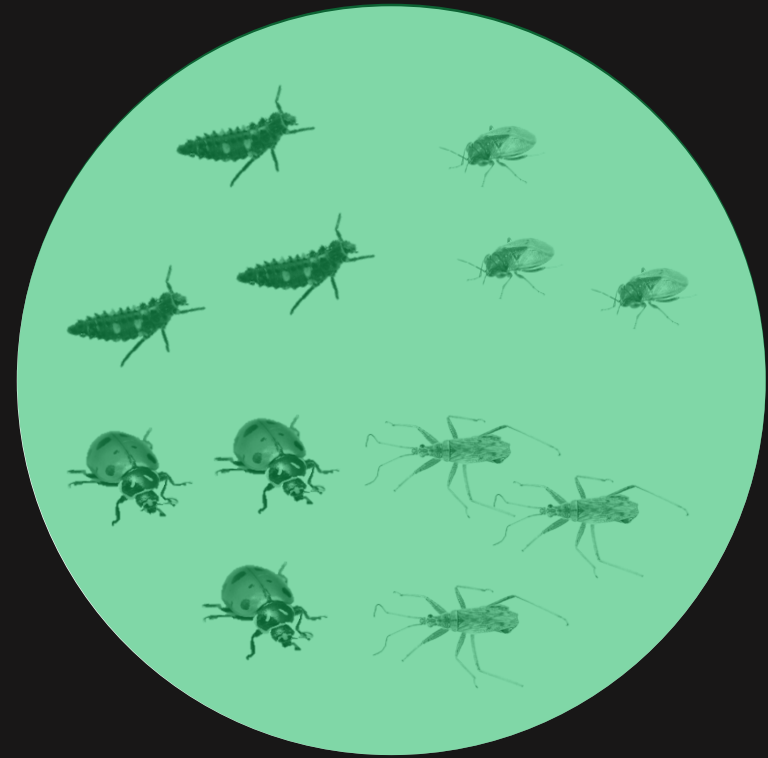
Insecticide selectivity →



Broad-spectrum

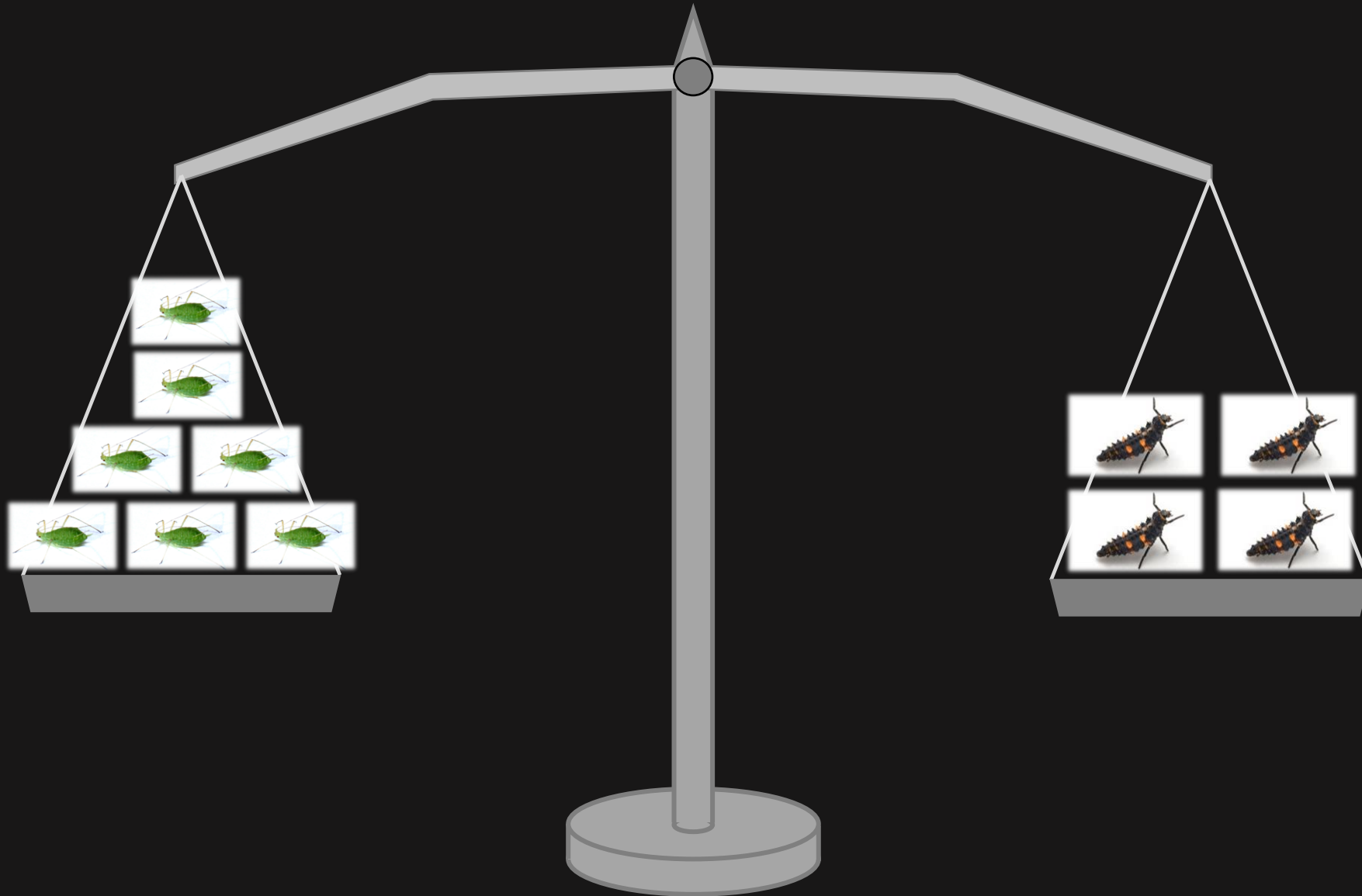


Partially safe for NEs



Safe for NEs

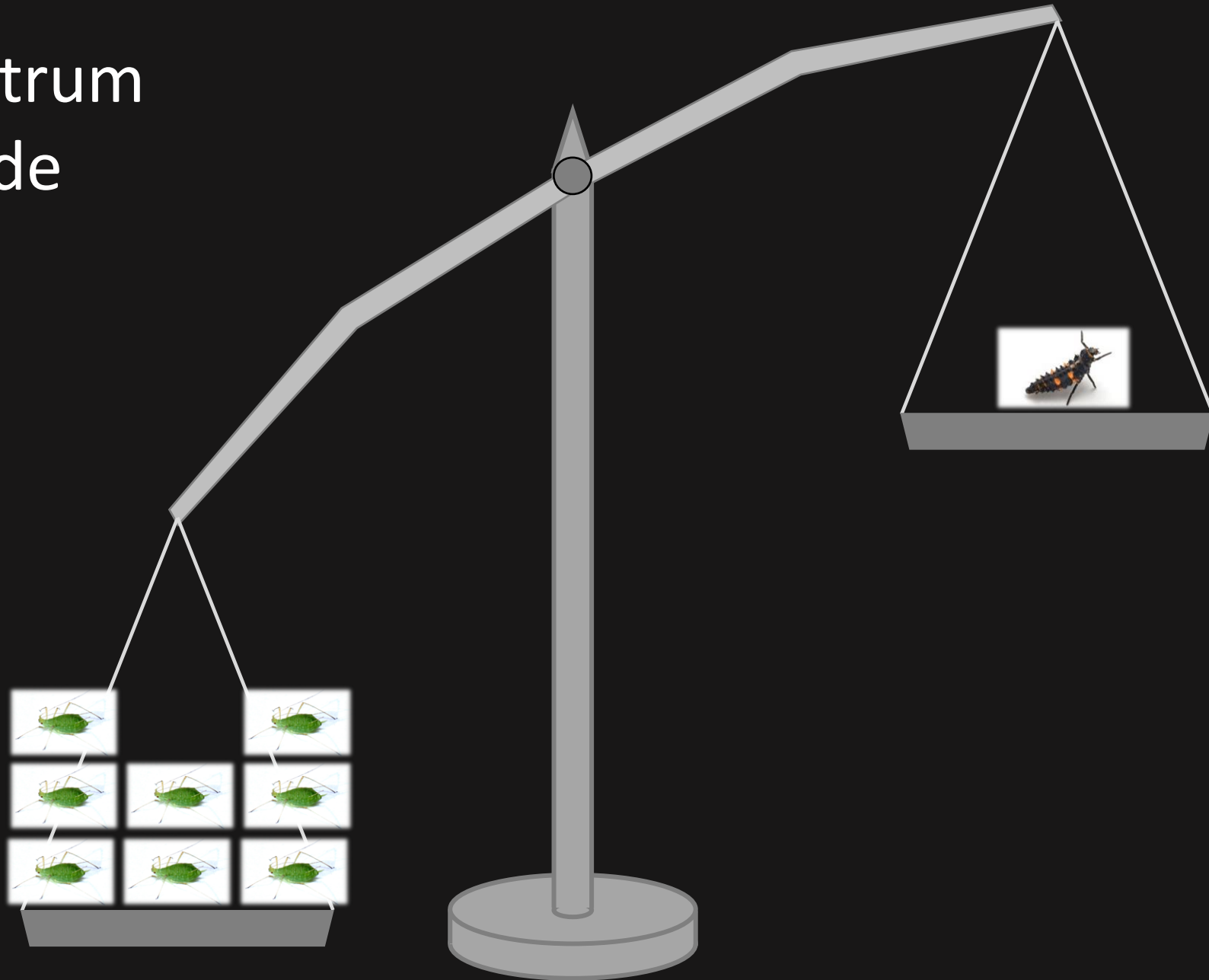
Broad-spectrum insecticide



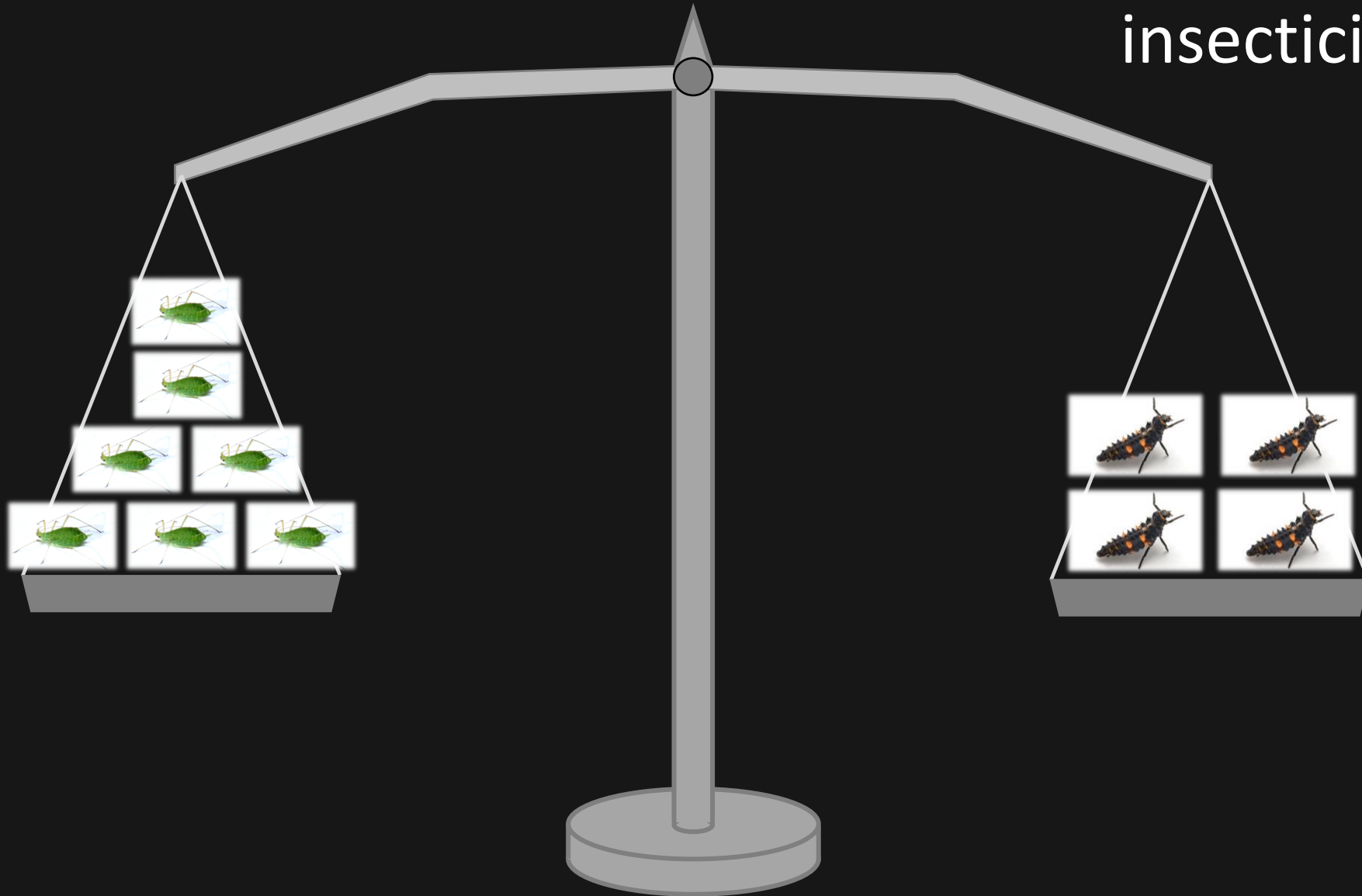
Broad-spectrum insecticide



Broad-spectrum
insecticide



Selective
insecticide







Bioresidual
"Other pest effects"

Direct efficacy

Tank mixtures

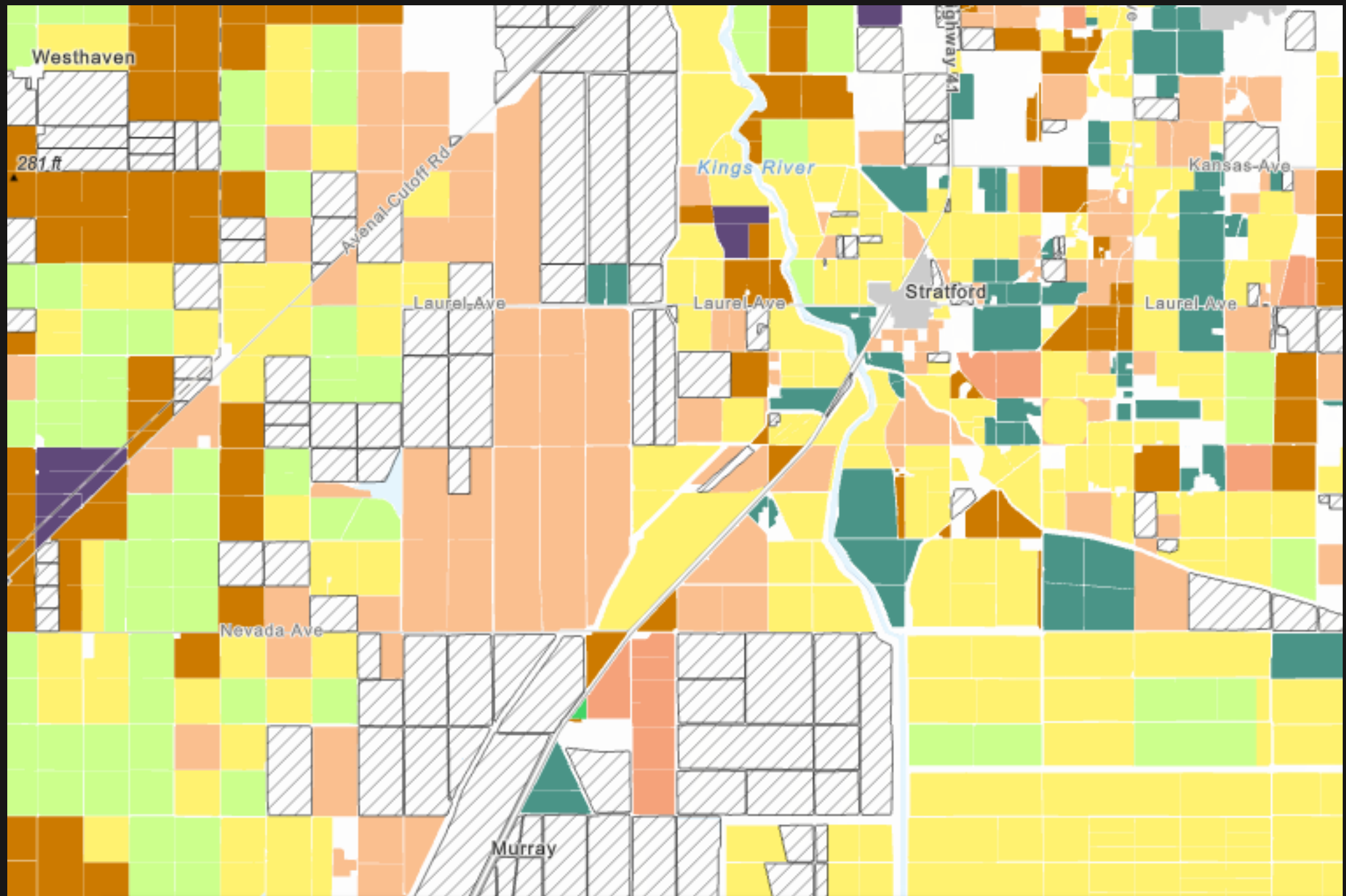
Selectivity

Efficacy





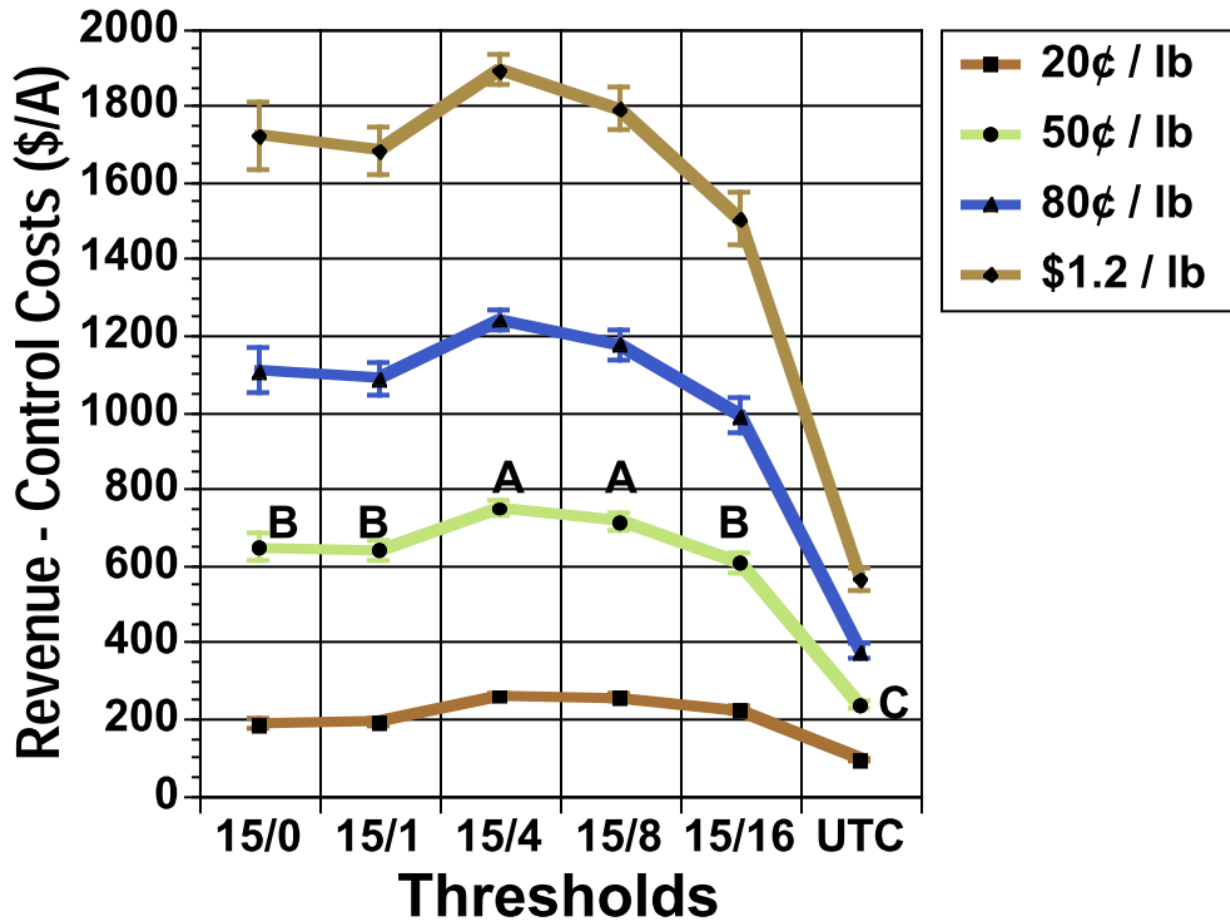




Risk of possible lygus release

| Habitat | June (Preflowering) | July (Flowering) | August (Boll filling) |
|-----------------------|------------------------|---------------------|--------------------------|
| Cotton | Low | Low | Medium |
| Alfalfa (unmanaged) | High | High | High |
| Alfalfa (managed) | Low | Low | Low |
| Uncultivated | Low to High | Low | Low |
| Safflower (unmanaged) | High | High | Low |
| Safflower (managed) | Medium | Low | Low |
| Seed Alfalfa | Medium | High | High |
| Tomato | Low | Medium | Medium |





Conservative

Yield ≠ \$ for lygus

- Direct effects on revenue based on control costs and yield losses from lygus

FIFRA Section 18 Crisis Emergency Exemption: for use of afidopyropen on cotton to control lygus outbreaks and potential whitefly outbreaks

Summary

SCH Number

2023080133

Public Agency

California Department of Pesticide Regulation (DPR)

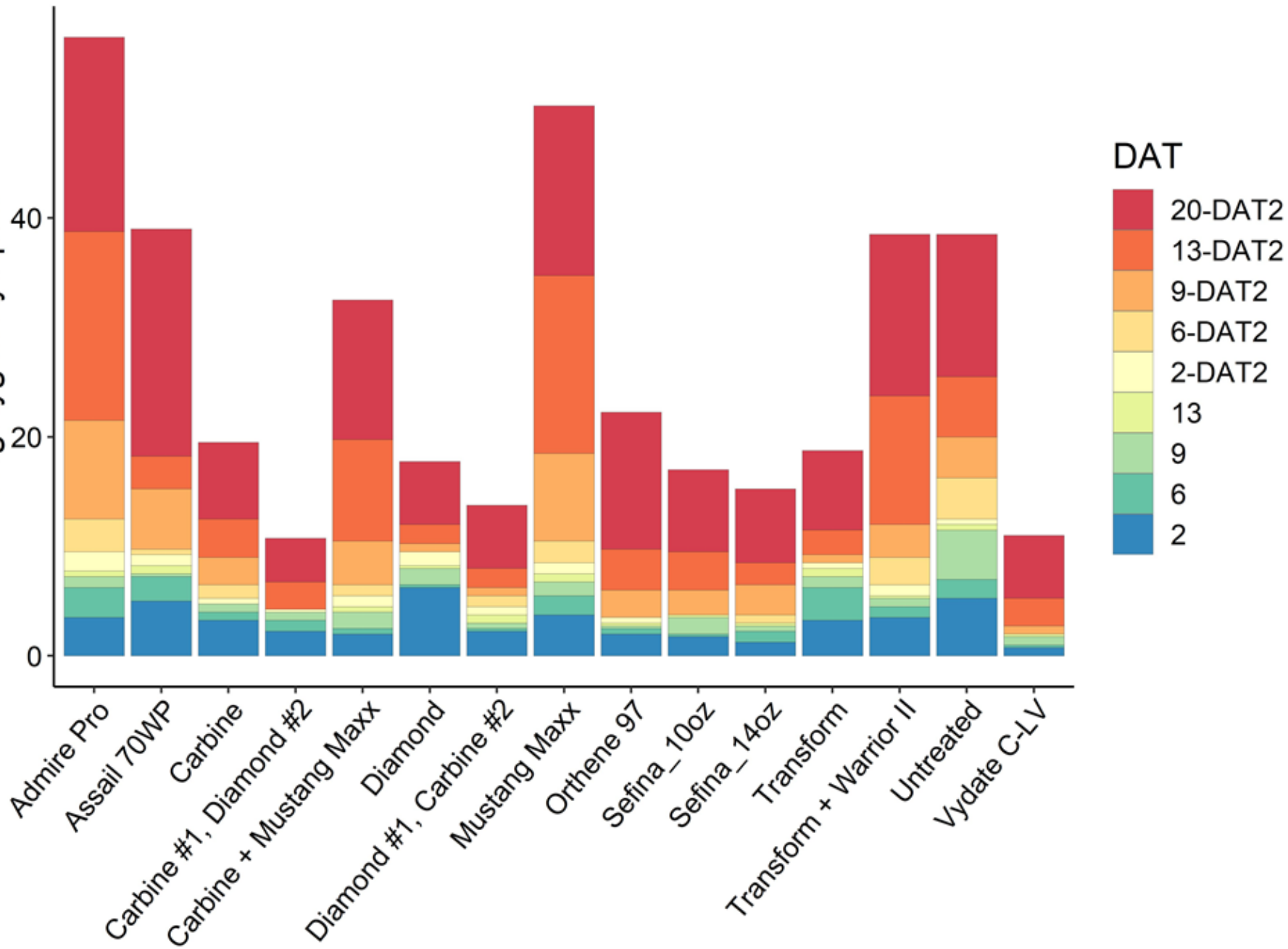


2021

| Treatment | Active ingredient | Rate (per acre) |
|------------------------|--------------------------------|----------------------|
| Admire Pro | Imidacloprid | 1.7 fl oz |
| Assail 70WP | Acetamiprid | 2.3 fl oz |
| Carbine | Flonicamid | 2.8 oz |
| Carbine #1, Diamond #2 | Flonicamid, novaluron | 2.8 oz, 12 fl oz |
| Carbine + Mustang Maxx | Flonicamid+zeta-cypermethrin | 2.8 + 4 fl oz |
| Diamond | Novaluron | 12 fl oz |
| Diamond #1, Carbine #2 | Novaluron, flonicamid | 12 fl oz, 2.8 oz |
| Mustang Maxx | Zeta-cypermethrin | 4 fl oz |
| Orthene 97 | Acephate | 16 oz |
| Sefina | Afidopyropen | 10 fl oz |
| Sefina | Afidopyropen | 14 fl oz |
| Transform | Sulfoxaflor | 2.25 oz |
| Transform + Warrior II | Sulfoxaflor+lambda-cyhalothrin | 2.25 oz + 2.56 fl oz |
| Untreated | -- | |
| Vydate C-LV | Oxamyl | 34 fl oz |

Nymphs

Avg. Iygyus nymphs



Adults

