

Control whiteflies with one shot

By ERIC McMULLIN

LOOKING for a one-shot treatment to control whiteflies in cotton?

Try tank mixing an insect growth regulator with an adulticide, and then wait to treat until you have significant numbers of both nymphs and adults in your fields, say two pest control advisers who have done just that the past few years.

"I wait until I have five to seven adults on the fifth leaf, and there's usually one to five nymphs per leaf at that time, too," reports Matt Chase, a PCA with Helena Chemical in Hanford.

"Then, I come in with Courier and endosulfan — either Thionex or Thiodan. Or if I can't use endosulfan because of restrictions, I'll use a combination of a pyrethroid like Mustang or Warrior along with an organophosphate like Lorsban. I sometimes use Assail as my adulticide. It isn't a true knockdown, but it does a pretty good job, plus it picks up aphids," says Chase.

The adulticide knocks out any adults in the field, he explains, while the IGR stops nymphs from developing into adults, thereby giving him 30 to 40 days of residual. Courier and Knack are the two IGRs registered for cotton, but Knack needs to be applied earlier in the season to be effective, says Chase.

"That's what I like about Courier

Key Points

- Tank mix an IGR with an adulticide for early control of whitefly in cotton.
- Courier and Knack are the two IGRs registered for cotton.
- IGRs are "soft" materials that are specific to their target pest.

— you can apply it early or late. We've found that we can go with the Courier later, as long as we add an adulticide," says Chase.

Of course, the old system of applying an IGR early as soon as whitefly populations begin to build is still valid.

Courier and Knack were registered in cotton earlier in the decade, and have quickly become the first — and second — line of defense in whitefly control, says Pete Goodell, Integrated Pest Management specialist for University of California Cooperative Extension.

Soft touch

IGRs are "soft" materials that are specific to their target pest, notes Goodell. They can be applied early without disrupting populations of beneficial insects. And because they have different modes of action, growers can apply one IGR early, then rotate into the other if future generations develop.

Oberon is also an early option, espe-



KNOCKOUT TREATMENT: An adulticide knocks out any adult whiteflies, while an IGR stops nymphs from developing into adults, providing 30 to 40 days of residual, says Matt Chase, a PCA with Helena Chemical in Hanford.

cially if mites are present. And harsher materials like pyrethroids and organophosphates can be applied late in the season, if necessary.

"That's a great system," says Chase. "But realistically, with the cotton market what it is, guys aren't willing to spray two or three times a year for whitefly. I

talk with Pete a lot, and he has a great, solid program that's been tested and verified in the field. But a one-shot treatment has carried me through the season in probably 95% of my fields. Occasionally, I'll have to touch up on the edges where whiteflies are coming in from neighboring fields, but that's about it."

Layby options

Admire and other neo-nicotinoids are as effective against whitefly as always, but should be avoided, if possible, because they are so widely used earlier in the season and in neighboring crops, says Goodell.

That's true, although the control they provide earlier in the season is a big part of the picture, says Ken Wintz, a PCA with Britz Chemical in Five Points.

Wintz recommends Centric, Provado or Vydate at layby to control aphids and lygus, "and those seem to hold whitefly populations in check a bit, too. That's an important part of it.

"Even if I can't see whiteflies in the field right then, I know they're there. And that early application of a neo-nicotinoid gives me a chance to hold off on a whitefly treatment. Then, I come back with Courier and endosulfan as soon as I see significant numbers of whitefly adults, and that usually takes me through to the end of the season."

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