A Discussion on Control of Sunflower Moth (Head Moth)

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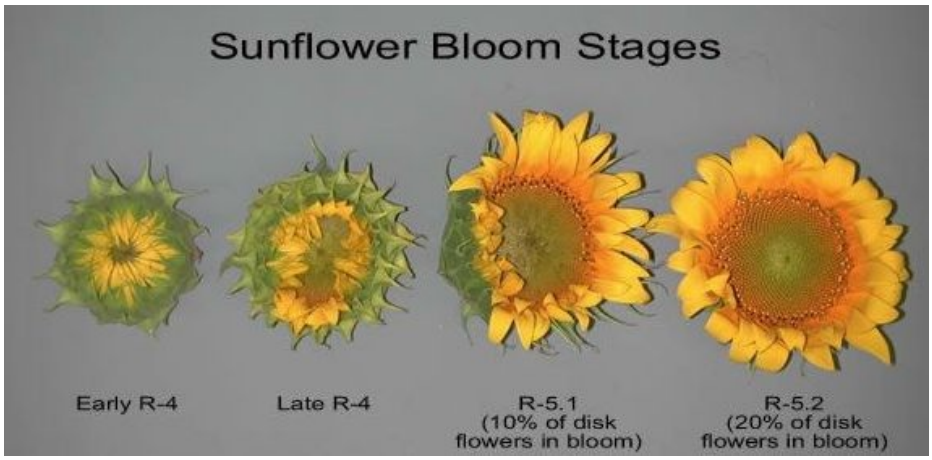
What is most difficult in controlling sunflower moth is timing the insecticide applications. For many years the products we had available were the pyrethroids and chlorpyrifos or methyl parathion added to the mix. These products were and still are used to kill the sunflower moth to prevent eggs from being laid on the head.

So, applications need to be timed while moths are active* and when the sunflower heads are initiating bloom, 5% and followed by a second spray 5-7 days later. Scouting is critical to know when sunflowers begin to bloom and to have the aerial applicator ready to spray when you make the call. This is because sunflower can begin blooming on one day and in 4 days be at 75% bloomed.

* Brad Cowan note: In the Valley, assume the moths are there and concentrate on protecting the heads during the entire bloom period with well-timed sprays. **This is critically important!!**



From an entomologist perspective a head is blooming as soon as any ray petals begin to lift up opening the florets to the sunflower moth. This can be at the end of R4 to the very beginning of R5. Most agronomists would not consider a sunflower head blooming until R5.1, which is too late when considering potential for moth egg lay and damage. This particularly true when relying on pyrethroid to control the moth.

The newer products, Prevathon, Belt, and Besiege, all have performed well and at times better than pyrethroids based on research trials conducted by Roy Parker, now retired Extension Entomologist at Corpus Christi. However, these products do not perform like the pyrethroids, except that one of the products in Besiege is a pyrethroid. There is the same active ingredient in Prevathon and Besiege, plus the pyrethroid in Besiege. This active ingredient does not kill moths, but has excellent activity against larvae because the chemical moves into the head. The company that sells Prevathon recommends spraying the first application 1-2 days before bloom initiation. But Dr. Parker's data show that good control is achieved with Prevathon, Belt, and Besiege when the first application is applied at 1%-2% bloom with a second application 5-7 days later. All of these products require two applications for good control. The 14 oz rate of Prevathon will provide more consistent results than lowering the rate to 10 oz. I think 21 oz of Prevathon is too much and doesn't provide any better control. Belt at 2.5 – 3.0 oz/a and Besiege between 6.0 – 9.0 oz/a should work well. Spray volumes should be 10 gpa for ground rigs and a minimum of 3 gpa by air, preferably 5 gpa.

I do not see a need to add a pyrethroid to Prevathon because when we start playing around with how much Prevathon plus the pyrethroid we have a tendency to over mix both of the products which is more costly or we under mix and do not get good control. If you already have a good program using pyrethroids and are confident in your scouting for moths and timing applications based on bloom percentages, I would not change. Pyrethroids are a lot less expensive, but for piece of mind I would consider switching to the newer products.