Cooperative Extension

Community-Wide Lygus Action Plan

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While there is little anyone can do about the weather, we can be better prepared for its consequences. The early monsoon season may result in greater challenges in our respective production systems. Ultimately, the damaging effects of Lygus *are likely to increase with this significant change in weather.*

Crop Progress

Seed alfalfa producers set out to achieve a production schedule that would compact the time necessary to pollinate and set a seed crop. The goal was to accelerate production in order to minimize the negative impacts of *Lygus* and the risks of inclement weather. In fact, most seed alfalfa production has been greatly accelerated over last year. The crop was rapidly drying down prior to last week. Some fields have even been harvested. However, there are other fields and portions of fields that remain green, and the latest round of rains may serve to extend the hostable period for *Lygus*.

The cotton production season has also been accelerated over last year. Conditions for stand establishment were better than most years in recent memory. Warm days and cool nights have contributed to the good start that cotton growers have enjoyed statewide. Recent monsoonal activity poses special problems for cotton growers, too. Nighttime temperatures tend to increase and may lead to added stress on a crop that is actively squaring.

The relative speed of production has been greater for seed alfalfa than cotton. As a result, initial *Lygus* movement has been earlier this year, but not necessarily to cotton. As large portions of the seed alfalfa crop dried down two weeks ago, we saw reductions of adult activity there and coincident increases in nearby alfalfa hay fields.

Lygus are choosy about what they eat, and studies have shown that they prefer alfalfa (vigorously growing) over cotton. This may be especially true early in the season when cotton is still young and does not offer up the closed canopies and lush growth that are more prevalent later on. This year we may have seen the effects of this "choosiness" in *Lygus*, but all that could change.

Challenges

Several important trends from this past week may present special challenges for the production of cotton and seed alfalfa.

- Monsoons create unfavorable conditions for completion of the seed alfalfa harvest, for limiting post-harvest re-growth in those fields, and for efficient cotton fruiting.
- *Lygus*, especially adults, are increasing again in some seed-alfalfa fields (Fig. 2).
- It appears that some alfalfa hay fields may be used for seed production, which will further lengthen the *Lygus* production period.

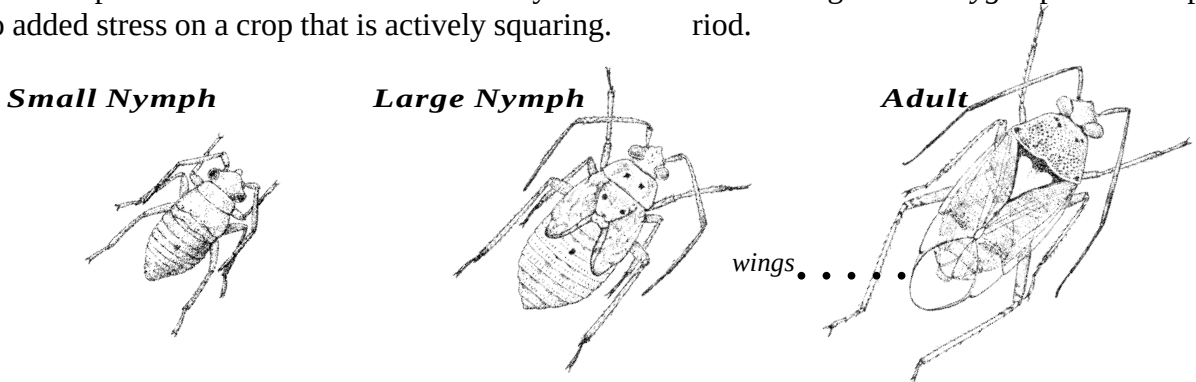
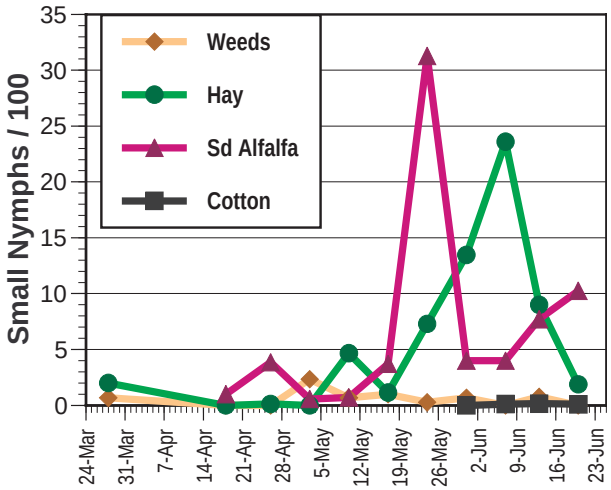
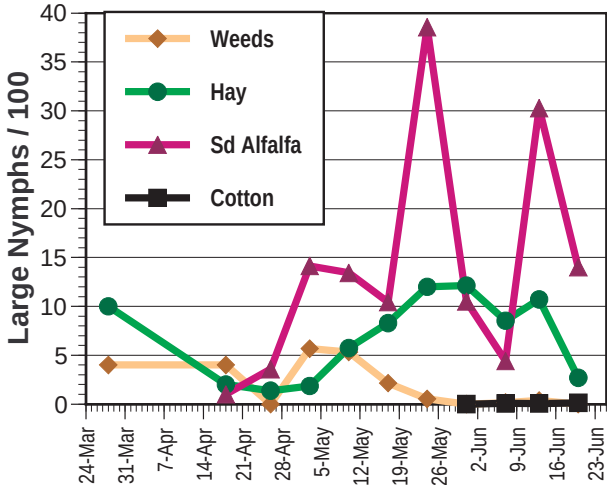
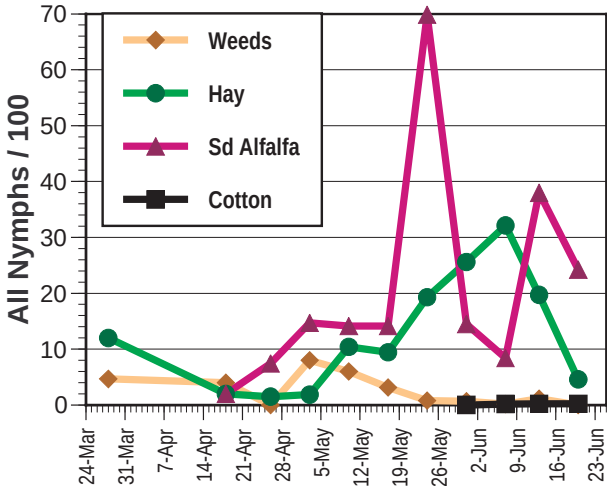
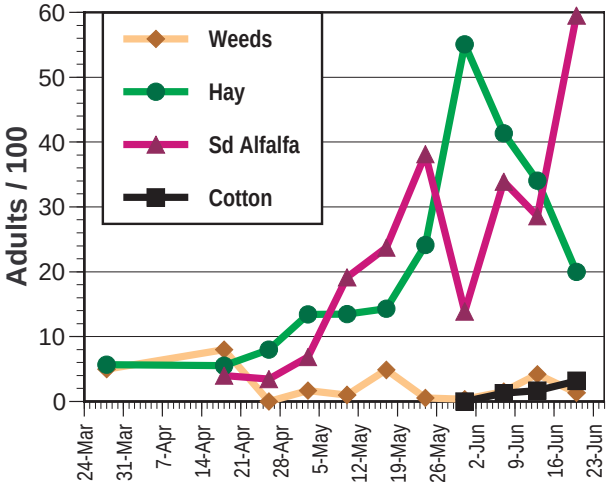


Figure 1: A key to understanding Lygus *movement in local areas is recognizing that nymphs are flightless and thus plant-bound, but adults are highly mobile. Maintaining a well-timed, block- or alternate field-cutting strategy for alfalfa hay through this period may be key to corralling* Lygus *and preventing movement to sensitive crops like cotton and seed alfalfa. Chemical control in cotton should not begin until nymphs are present (15 Total* Lygus *with 4 nymphs per 100 sweeps).*









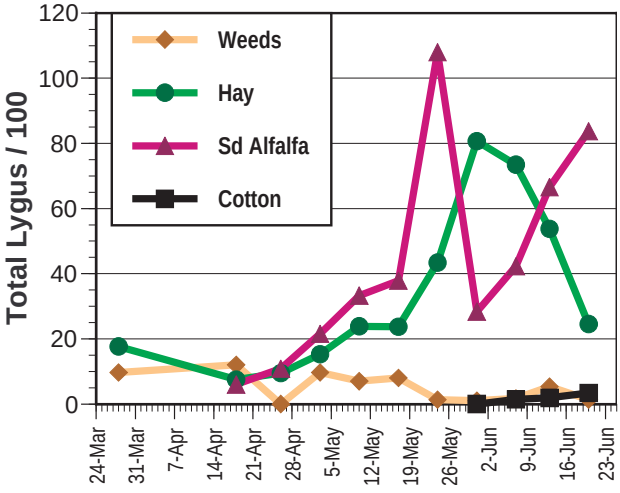


Figure 2: Number of Lygus *per 100 'cotton-style' sweeps in various crops in the western Pinal County area. Each chart represents an average of multiple sites in multiple fields each week. Due to differences in the number of sites each week, these numbers are for general information only. No sample was taken from seed-alfalfa on 28 March. Each site is re-sampled each week unless it has been recently sprayed, cut or otherwise removed, or watered. Each chart shows the results for the entitled life stage.* Small Nymphs *are instars 1–3;* Large Nymphs *are instars 4–5;* All Nymphs *is the sum of these 2 nymphal categories;* Total Lygus *is the sum of all stages of* Lygus *including adults.*

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