



Current Crop and Insect Situation:

Hot dry weather has returned to Oklahoma. Although cotton is a “heat loving” plant nothing loves this kind of heat. Caution should be used while scouting in this heat make sure you drink plenty of water!

Early Season Pest



Fleahoppers are the last of the early season pests. Since the introduction of Bt cotton and boll weevil eradication the cotton fleahopper has become the number one pest in Oklahoma. The cotton fleahopper usually feeds on young succulent weeds such as



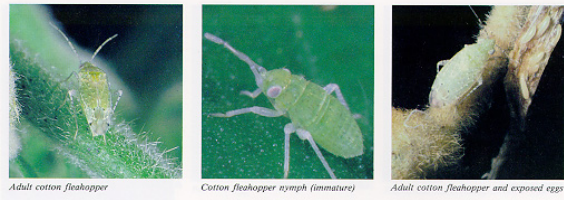
croton, goatweed, and horsenettle in early spring. These weeds also provide an overwintering site for eggs. As the weeds mature, adults migrate to cotton which is beginning to develop pinhead squares. Fleahoppers insert their sucking mouthparts into the small squares. These damaged squares later turn brown and are shed from the plant.



In addition to squares, the cotton fleahopper will also feed on other parts of the plant. If heavy infestations exist, new growth will be abnormal and whip-like in appearance. All stages of the life cycle will feed on the plant as long as it remains succulent. As soon as the cotton matures, these insects migrate to weeds or other host crops. In southwest Oklahoma, the highest population generally occurs in cotton in early August, although it is not generally a problem that late in the season.

The life cycle begins with the female placing her eggs into the plant tissue by means of an ovipositor. The eggs hatch in approximately 1 week, and small nymphs (which are similar to the adults, except for being wingless) undergo five molts before reaching the adult stage. Egg to adult takes approximately 3 weeks with six to eight generations per year. The cotton fleahopper adults are approximately one-eighth inch long, winged, and pale green in

color. They are covered with small black spots and have four characteristic black spots near the wing tip. The nymphs are about one-twenty-fifth inch long, wingless, and pale green in color.



Numerous chemicals are registered for control of fleahoppers. Fleahopper should be controlled only when thresholds are exceeded to protect beneficial insects since these will help control later occurring pests. After July 25, the control of cotton fleahoppers generally is not economical due to Oklahoma's short growing season.

Spray decisions should be based on the squaring rate and level of cotton fleahopper infestations. Usually when cotton fleahoppers (adults and nymphs) reach or exceed 40 per 100 terminals, squaring rates begin to decline, justifying treatment. However, if cotton fleahopper numbers build slowly, fields can tolerate higher number of cotton fleahoppers before a reduction in squaring rate will occur. In most cases, fields will no longer be vulnerable to cotton fleahoppers once they begin to bloom.

GROWING DEGREE DAY:

A Growing Degree Day (GDD) is defined as 24 hours of time in which the temperature is one degree above the lower temperature threshold (60°F - 100°F). By using this range and the high and low temperatures for each day of the growing season, the amount of heat available to the cotton, measured in day degrees, can be calculated. The heat unit data is collected from *Mesonet weather network weekly*.

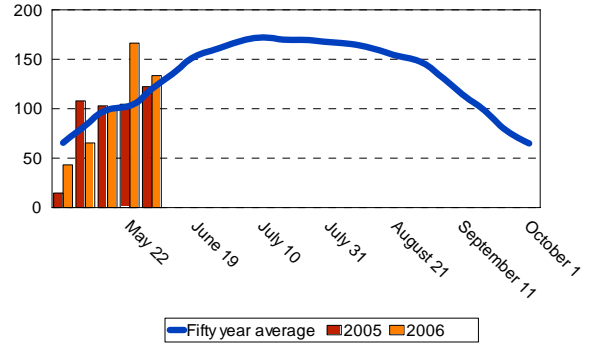
Cotton Growth Timetable

<u>Stage of Growth</u>	<u>GDD</u>	<u>Days</u>
Emergence	50 - 60	3 - 4
Pinhead Square	425 - 500	25 - 45
First Bloom	725 - 825	41 - 67
Open Boll	1575 - 1925	102 - 127
Defoliation	2150 - 2300	120 - 140

Altus

Growing Degree Days (GDD)

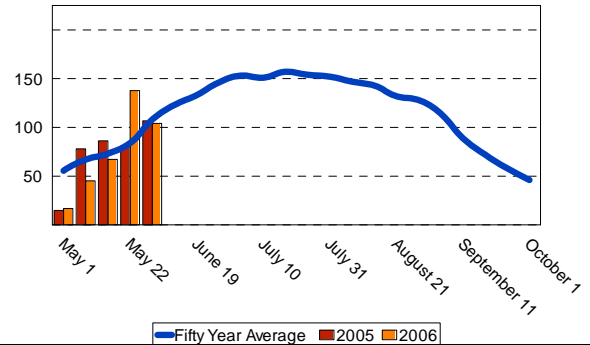
Week of	50 year	2005	2006
May 1	65.5	14.7	43.1
May 8	82.9	107.9	65.3
May 15	98.6	102.9	99.7
May 22	102.9	104.4	166.3
May 29	120.2	122.3	133.4
Total	470.1	452.2	507.8



Blackwell

Growing Degree Days (GDD)

Week of	50 year	2005	2006
May 1	55.6	14.9	16.8
May 8	67.5	78.0	45.2
May 15	73.2	86.2	67.1
May 22	84.3	81.2	137.8
May 29	108.4	106.8	104.1
Total	389.0	367.1	371.0



Hobart

Growing Degree Days (GDD)

Week of	50 year	2005	2006
May 1	62.3	13.8	31.4
May 8	76.2	79.6	22.4
May 15	84.9	92.6	86.2
May 22	94.7	89.9	164.2
May 29	119.8	117.9	115.3
Total	437.9	393.8	419.5



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