



Improving Lives. Improving Texas.

*Pest Management News
News About integrated pest management for
producers in Runnels-Tom Green Counties*

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GENERAL SITUATION

Summer has definitely arrived in the Concho Valley. Cotton has really responded to the additional heat units and is progressing well. Fleahopper numbers ranged from 0 to 38 fleahoppers per 100 terminals. Continue to monitor fleahoppers up until bloom stage. Once bloom stage occurs, the cotton plant has many fruiting sites and fleahoppers are not as much of a concern.

PEST ALERT!!!!!! Sugarcane aphids have been documented in Coleman County. On Tuesday, Michael Palmer (Ag Agent in Coleman County) contacted me and said he had a grower having significant problems in his grain sorghum field. I received specimens from the field and they were identified as sugarcane aphids. The sorghum leaves literally had hundreds of aphids on them and about 1/3 of them were winged. Winged forms migrate folks. Get prepared and scout your fields regularly for the presence of this aphid. Large amounts of honeydew on the leaves will also be present. AND YES, they infest sorghum sudan (Haygrazer) as well. From what I have read, they prefer older plants but will infest the whorl of small seedling plants. If you suspect this aphid in your field, GIVE ME A CALL ASAP.

COTTON

Cotton ranges in growth from pinhead square to bloom/boll stage. Fruit retention remains well above 85% in most cotton fields. Fields which entered the bloom stage this week were going in at 8 nodes above white flower. The average height to node ratio was 1.2". This tells us that the plant is not stressed and has horsepower to continue setting fruit.

A few cotton aphids can be found in some fields but infestations are very low. Need a few aphids to attract natural enemies into the field. Spiders and minute pirate bugs are the predominant predators right now.

PLANT GROWTH REGULATORS

Mepiquat Chloride (MC) reduces production of gibbarellic acid in plant cells that in turn reduces cell expansion, ultimately resulting in shorter internode length. MC will not help the plants compensate for earlier weather damage by increasing growth rate. MC **should not** be applied if crop is under any stresses including moisture; weather; insect; nematode damage; herbicide injury; or fertility stress. Determination of applications as well as rates is generally more "art" than "science" for these products.

A good rule of thumb; maintain a length less than 10 inches in length of the upper 5 nodes. Listed below is the current PGR's available.

Pix, Mepex, Mepichlor, Mepiquat Chloride and other generics

4.2% active ingredient (a.i.)/gallon or 0.35 lb/gallon a.i.

Pix Plus

4.2% a.i./gallon or .035 lb/gallon a.i. with Bacillus cereus (BC) strain BP01 bacteria (reported to increase uptake of MC)

Pentia

Mepiquat pentaborate molecule (different structure than MC)

9.6% a.i./gallon or 0.82 lb/gallon a.i.

It has been reported that the physiological effect of Pentia is "hotter" oz for oz than MC, however, BASF's suggested use rates are essentially equivalent to Pix.

Mepex GinOut

4.2% a.i./gallon or 0.35 lb/gallon a.i. with 0.0025% Kinetin (a cytokinin).

Cytokinins are plant hormones that promote cell division and growth and delay the senescence of leaves. This product has use guidelines similar to other MC materials.

Stance

Mepiquat chloride (8.4% or 0.736 lb a.i./gallon) with cyclanillide (2.1 % or 0.184 lb a.i./gallon)

It has a lower use rate than other mepiquat-based PGRs (2-3 oz/acre-see label)

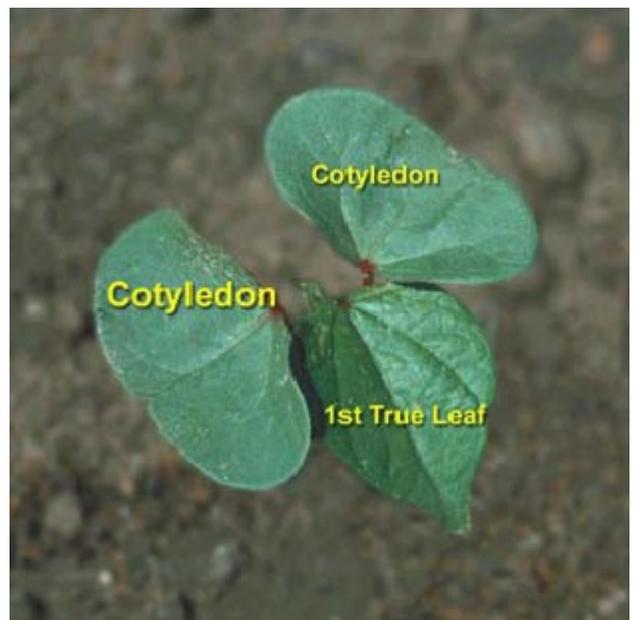
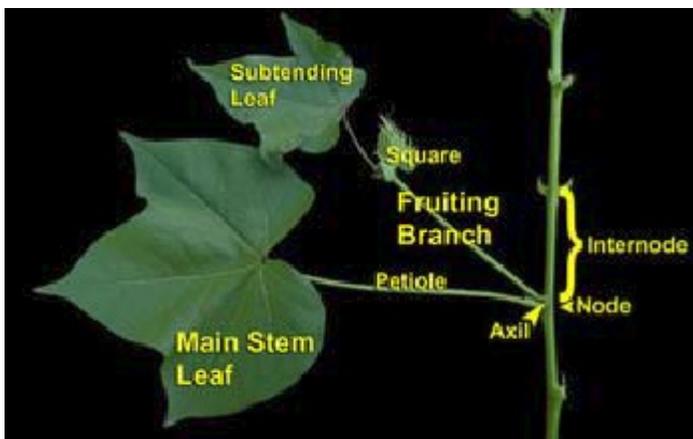
Has higher concentration of MC than other 4.2% for 0.35 lb a.i./gallon products

Cyclanillide is an auxin synthesis and transport inhibitor. Auxins are compounds which have the capacity to induce cell elongation. This inhibition of auxins could reduce cell elongation and inhibit growth.

COTTON BASICS....

The Cotton Leaf. When the square is five days away from bloom, it starts an explosive growth in size, as petals expand readying themselves for bloom. Large squares are firmly attached to the plant and drawing nutrients from nearby leaves. Young squares are almost entirely fed by their own bracts, which are better adapted than leaves to either low light, cool weather or N deficiency.

Leaves are the solution to two common plant problems 1) the need to maximize sunlight absorption to fuel photosynthesis, the capture and storage of light energy and 2) the need to minimize water loss while maximizing CO₂ uptake. Water conservation is achieved by controlling air movement in and out of the leaf through



small pores, stomata

There are three types of leaves on the plant. Cotyledons, or seed-leaves, which are mainly nutrient storage tissue for the developing plant.

Main-stem leaves, those attached to the main-stem, feed the developing terminal, root system, branches and bolls. While subtending leaves, those attached to the fruiting branches, are critical for fruit set and boll filling.

Cotton leaves have a limited productive life. For the first 16 days after a leaf begins to unfurl, carbohydrates produced are directed towards the growth of the new leaf. As soon as it is about 80% expanded, day 16-18, is when the leaf hits its peak carbohydrate exporting capability. By the time a leaf is 25 days old, it starts a downhill slide until 60-65 days old when it no longer exports carbohydrates to fill bolls.

UPCOMING MEETINGS

TURNROW MEETINGS..... Wall Coop at 9:00 am on July 29th. Ballinger Courthouse, Third Floor, Large Room at 8:30 am on July 30th. See you there.

2014 BIG COUNTRY WHEAT CONFERENCE coming Thursday, August 14 beginning at 8:30a.m. at the Taylor County Expo Center, Big Country Hall. 3 CEU's 1 IPM, 1 General, 1 L&R. Event is free of charge if you register by August 12th or \$20 at the door. FMI or to register, please call 325-672-6048. For agenda go to: <http://today.agrilife.org/2014/07/09/big-country-wheat-conference-set-aug-14-in-abilene/>

A MULTI-COUNTY FARM BILL MEETING is set for Wednesday September 24th. It will be held from 8:30-12:00 noon at the Tom Green County 4-H Building. This is a very necessary meeting. Many changes are coming and almost everything you do will pertain to internet and computers. A decision aid has been built by Dr. Joe Outlaw,, and his group to assist producers in making management decisions on their individual farms. Here is the website you can go to now and get started to setting up your account and learning about the new farm program.

TOTAL HEAT UNIT (HU) ACCUMULATIONS

Planting Date	Total HU Accumulation as of July 22, 2014	Total HU Accumulation as of July 22, 2013
May 15, 2014	1,387	1,381
June 1, 2014	1,120	1,104
June 15, 2014	957	912

FALL ARMYWORM AND BOLLWORM/BUDWORM MOTH COUNTS

	July 9, 2014	July 10, 2014	July 14, 2014	July 16, 2014	July 21, 2014	July 23, 2014
Loop 306 Bollworm	150	100	275	100	200	250
FM 388 Budworm	8	2	10	11	21	20
FM 380 Bollworm	125	11	125	75	110	300
Loop 306 Fall Armyworms					100	35
FM 388 Fall Armyworms					200	50
FM 380 Fall Armyworms					85	70

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