

VOLUME XLII, NO. 14

September 16, 2003

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LAST WEEKLY ISSUE OF NEWSLETTER

This will be the last weekly issue of FOCUS to go out this year. I have enjoyed putting this newsletter together for you as editor and am very thankful for all the excellent articles provided by my contributors including Drs. Randy Boman, Dana Porter, Pat Porter, Megha Parajulee, Calvin Trostle and Terry Wheeler. I am especially grateful for all the effort put forth by Michelle Coffman as web layout manager. She takes the very plain document I compile and makes it look like a million bucks! I will continue to prepare Off-Season Supplements to FOCUS as the need arises. You will be contacted as these are readied if you are an e-mail subscriber. Again, thanks for being FOCUS readers. Please get out the word to others that might benefit from the information we present.

COTTON INSECTS

More open bolls have appeared as cooler temperatures were ushered into the area over the weekend by a cold front. Warmer weather is predicted to return by Tuesday or Wednesday but still, it will be a stretch to gain more than 15 heat units (HU's) a day from now on. Ten HU's or so will be more the norm. This means it will take a lot longer to gain the needed heat units to be relatively safe from Lygus bugs (250 from bloom), bollworms (450 from bloom) or pink bollworms (650 from bloom). The good news is that very few problem fields remain where insect management is still an issue.

Fleahopper and Lygus bug numbers are at very high levels in some fields, the highest I've seen in years. The high fleahopper number is an oddity but of no concern right now but the increasing Lygus numbers will still be a concern for very late cotton south of Lubbock. Recent studies by Andy Cramer, graduate student of Dr. Megha Parajulee, has shown that while external feeding damage remains high even through 450 HU's, internal damage falls to 25% at 250, 5% at 350 and close to zero by 450 HU's. I would expect that most if not all bolls that have much of a chance gaining 750-850 HU's past flower in the remaining weeks are relatively safe from Lygus bugs by now.

What might be a concern is the higher than normal number of Lygus bugs and fleahoppers that might indicate a large overwintering population (eggs or insects) and the potential for abnormally high spring populations. We will just have to wait and see what next year brings. My overall observation this year is that we largely dodged a fleahopper problem situation because they took so long to build to damaging levels and environmental conditions allowed for very high square retention. While Lygus have followed a similar pattern as fleahoppers, their ability to damage older squares and bolls made them more of a problem for producers and necessitated more spraying this year than the last two previous years.

Very few bollworm problems remain. Most bolls are safe from penetration from 1-3 day old caterpillars. Once squares and very small bolls are shed following cutout, there is not a ready food supply around for small larvae to gain size sufficient to penetrate larger, tougher bolls. A statewide pyrethroid resistance-monitoring program was launched this year with sites from the Valley to the High Plains. While one year of monitoring can provide misleading results, tests in the High Plains area (Plainview, Hub, Lariat) indicated no resistance problems. On the other hand, the Brazos Bottom may be developing a resistance problem based on preliminary results.



Bollworm on square

We compared three varieties from the same genetic background including a Roundup Ready variety, a stacked Roundup Ready/Bollgard and a stacked Roundup Ready/Bollgard II variety. The results are far from being analyzed but preliminary results indicated that both the Bollgard and Bollgard II varieties kept caterpillars to extremely low levels and square and boll damage minimized. The Bollgard II variety had about 25% of the damage as the Bollgard variety, which had 2/3rds less damage than the Roundup Ready only variety. Much of the damage in both Bollgard and Bollgard II varieties was superficial and would not have resulted in much lost fruit. Remember that caterpillars must feed on the Bt plants in order to obtain a lethal dose. Both Plains Cotton Growers and Monsanto funded the 2002 tests. Next year's tests will be funded by the Cotton Incorporated State Support Committee and Monsanto.

Aphids are still present in many fields but certainly not at numbers of concern. Their days of influencing yield are over. Our attention now shifts to watching aphids for signs of honeydew deposition on lint as bolls open. The threshold for sticky cotton avoidance is 11 per leaf. A good rain usually takes care of any problems that may develop in most years. September rains usually average 2-3 inches. I might be more hesitant to rely on rainfall to wash away any developing problem this year because of the general absence of

Megha Parajulee and I initiated a Bollgard screening program this year with sites in the Lubbock area and at the Denver City peanut farm. Only the peanut farm site experienced any bollworm infestations and these were unusually light.

We compared three varieties from the

same genetic background including a Roundup Ready variety, a stacked Roundup Ready/Bollgard and a stacked Roundup Ready/Bollgard II variety. The results are far from being analyzed but preliminary results indicated that both the Bollgard and Bollgard II varieties kept caterpillars to extremely low levels and square and boll damage minimized. The Bollgard II variety had about 25% of the damage as the Bollgard variety, which had 2/3rds less damage than the Roundup Ready only variety. Much of the damage in both Bollgard and Bollgard II varieties was superficial and would not have resulted in much lost fruit. Remember that caterpillars must feed on the Bt plants in order to obtain a lethal dose. Both Plains Cotton Growers and Monsanto funded the 2002 tests. Next year's tests will be funded by the Cotton Incorporated State Support Committee and Monsanto.

normal rainfall patterns since June. The good news is that so far conditions (weather, plant growth patterns and beneficial insects) have not been conducive for late season aphid problems.

Pink bollworm damage has become more evident as infested fields respond to harvest aid applications. Even fields that received multiple applications of pyrethroids sustained some damage. Pink bollworms are often referred to as the other boll weevil of cotton. They can only be controlled by spraying for moths, which are most active at night. Detecting field infestations is much harder than for boll weevils. There appears to be a growing problem in the southwestern area of the High Plains, which would include Gaines, Andrews, Yoakum, Terry and possibly Lynn, Dawson and Hockley counties. Field infestations appeared to be concentrated between New Mexico state line, Seminole, Union, Brownfield and Plains area. While infestations were more widespread this year, most damage was still found the closer one got to the state line. However, trap catches of moths have increased substantially this year in the outlying areas. The Texas Boll Weevil Foundation is trapping moths across the High Plains. As this information is summarized, I will provide it to you through a FOCUS Supplement.

All I can say for now is that it appears we are seeing an increase in pink bollworm problems and distribution. I will be expanding the pink bollworm management supplement posted on the Lubbock web site this winter. A word to the wise would be to invest in Bollgard cotton and/or monitoring traps and a consultant next year if you experienced any problems with this pest this year.

Boll weevil trap catches remained low but more zones caught weevils. Only the Northern High Plains traps caught no weevils the first week of September. Permian Basin zone traps caught fewer weevils that week but still too many more a five-year program. Recent catches in the Northwest Plains zone are considered hitchhikers from vehicles coming



Boll weevil on boll

from south Texas where weevils are still plentiful. In spite of setbacks in the Permian Basin zone and recent trap catch increases in the

Northwest and Western High Plains zones, the five High Plains zones are still in excellent shape as far as eradication goes. **JFL**

Average accumulative number of boll weevils caught per trap through the week ending September 7, 2003.

Zone	2003	2002	2001	2000
Northwest Plains	0.00001	0.0004	0.0089	0.2014
Western High Plains	0.00001	0.0005	0.0149	0.4433
Permian Basin	0.0028	0.00116	0.011	0.3691
Northern High Plains	0.00003	0.0041	-----	-----
Southern High Plains	0.00002	0.0029	-----	-----

Total number of boll weevils trapped the week ending September 7, 2003 Texas High Plains.

Zone	Number of traps checked	Total number boll weevils
Northwest Plains	37,788	2
Western High Plains	78,577	1
Permian Basin	83,260	433
Northern High Plains	66,225	0
Southern High Plains	149,167	2

Total number of boll weevils trapped for the year through September 7, 2003 Texas High Plains.

Zone	Total number boll weevils	% of Total
Northwest Plains	8	0.2
Western High Plains	10	0.3
Permian Basin	3,162	97.0
Northern High Plains	28	0.8
Southern High Plains	51	1.5

COTTON AGRONOMY

The High Plains crop continues the countdown to harvest aid applications. Recent rainfall events across the region have generally been very helpful, as many irrigation wells were finally turned off. The down side is that up to 100,000 acres or so were badly damaged or destroyed by hail storms that occurred on September 7th and 9th.

[Hardest hit areas](#) include parts of Terry, Lynn, Yoakum, and Dawson counties. Over 3 inches of high intensity rainfall were associated with these storms in some areas. Detached bolls and sediment were carried from the floodwaters onto pavement on US Highway 87 near O'Donnell. Producers report that even peanut fields were severely defoliated in some areas.

Early reports from Dawson County indicate that at least 60,000 acres were badly damaged from a storm that tracked 5 or so miles wide that ran nearly the width of the county. Much of this cotton in Dawson County was dryland, with generally of lower yield potential, however, some very good dryland fields near



Lynn County Dryland

the O'Donnell area in Lynn County were destroyed.

Cotton in Terry and Yoakum counties didn't fare very well either if under the storm paths. The very poor yield potential dryland cotton looked as if it had been stripper harvested. There was not a hint there was ever any lint in the field. What a year for the Texas High Plains. Give me a golf ball-sized Prozac, please. I think that I can speak for many producers as well as myself ---we're ready to get this one "in the bale."

At Lubbock, for the first week of [September](#), heat units were about 14% below the long-term average. During the last several warmer days, we have now "caught up" to the long-term average, and the total for September 1-11 is 152.

Perhaps we can stay at least average or perhaps go above average through the remainder of the month. This will help many of the late and higher yielding fields capture needed maturity.

Countdown after cutout .

Some "hot" fields cut out early this year due to the fruit load adjusting to available moisture. Other earlier higher yielding fields that missed the bad weather have recently reached cutout (here defined as NAWF=5).

COTMAN uses 850 heat units past bloom as a point at which a bloom can make a "normal" boll.

In the High Plains, heat unit accumulations of 750 past bloom will probably make an "acceptable" boll that may not have "normal" lint production or may be lower in quality (low micronaire).

We have developed a table that indicates where we are as of September 11th. It is based on actual Lubbock 2003 heat units from August 1 through September 11, and from that point

forward, it uses the 30-year long-term average for each day. For example, the table shows that for a field that reached cutout on August 1 that bloom was able to obtain 250 heat units by about August 10. The 450 total occurred on August 20. This boll should have obtained good maturity (850 heat units) about September 14. For cutout at August 10, we obtained 250 heat units by August 22, and hit 450 heat units on September 4. Using the long-term average temperatures to project later heat units, the 850 total should be encountered around October 18. This table also indicates the likelihood of obtaining maturity of late set bolls.

DD60 heat unit events based on date of cutout (5 NAWF) and actual Lubbock August 1-September 11, 2003 temperatures with subsequent long-term average values for the remainder of the season.

DD60 Heat Unit Accumulation	Date When Crop Achieved Cutout (5 NAWF)					
	Aug 1	Aug 5	Aug 10	Aug 15	Aug 20	Aug 25
+250 HU (safe from lygus)	Aug 10	Aug 16	Aug 22	Aug 26	Sept 3	Sep 10
+ 450 HU (safe from bollworm egg lay)	Aug 20	Aug 26	Sept 4	Sept 9	Sept 18	Sept 30
+ 850 HU (mature boll)	Sept 14	Sept 26	Oct 18	n/a	n/a	n/a
Total HU through Sept. 30	999	883	751	667	560	456
Total HU through Oct. 15	1085	970	838	754	647	543
Total HU through Oct. 31	1131	1015	883	799	692	588

Assessing hail-damaged fields. A lot of interest has been generated concerning the use of harvest aids on badly hail-damaged cotton fields. This is a very difficult decision. Any time late hail damage occurs, depending upon the level of defoliation and boll maturity, low micronaire should be expected. Low gin turnout and bark contamination are also very likely. Kerry Siders, Extension Agent-IPM for

Hockley and Cochran counties, conducted a harvest aid trial on hail-damaged cotton in [1999](#). These data indicate that some higher yields were noted from some ethephon and paraquat treatments. The final hand-harvested yield in this project ranged from about 250-435 lb/acre. Working with some of our Extension Agriculture and IPM agents, we will be initiating a few trials on cotton with varying levels of hail damage/defoliation over the next week. We hope to have a better database to handle this situation the next time it arises.

I suggest that producers go to the fields and sample several areas. Cut whole plants from a few row feet (keep track of how many row-ft) and pull all bolls from the plants. Start out with a single pile. Then get a very sharp knife or razor box cutter (BE CAREFUL – you might want to wear a thick leather glove on the hand holding the bolls) and start cutting bolls. Perform a cross-section slice through the center of each boll. Bolls that are very easily sliced and have poorly developed cotyledons in the seed, or which have gelatinous centers in the seeds are probably not going to produce harvestable lint when a harvest aid is applied. Put all of these bolls in one pile – the “doomed pile.” Then if a boll has well-formed cotyledons, yet has a whitish seed coat, put it into another pile (these are what I call the “iffy” ones). However, if the boll has very good seedcoat color from tan to brown, it is considered mature.



Boll Cross-Sections

If you end up with 12-15 mature bolls per row-ft in 40-inch rows, then it is likely going to produce about a bale per acre of yield (for

many High Plains stripper types). See the section on [Estimating Lint Yields](#) from the August 29 FOCUS for more information on differing boll sizes and row spacings. I generally categorize bolls with badly damaged locks into the “doomed pile” as these may not properly open anyway. The number of “iffy” bolls may contribute to final yield, but remember, these will likely be low micronaire, and may not “fluff” properly when forced open by a harvest aid product.

The producer should consider the options at hand. Those can be categorized as follows:

1. Do nothing and leave the field to the freeze and harvest the cotton that opens. This may be the best option for some producers, after the yield level and the maturity of the field are assessed. Many late-planted fields may have few bolls that could even be considered for harvest aid treatment. Based on potential insurance payments and the yield coverage, doing nothing may not be a wrong answer. With this option, no more money is spent on the crop, and harvesting after the freeze and taking what’s left to the gin may actually result in a better financial position after insurance payments are considered.

2. Apply harvest aid materials and get the crop out. Once this decision has been made, the choice of what harvest aid product to use can then be addressed. How much can a producer afford to spend on a harvest aid for this hailed-on crop? Generally speaking, if a lot of “mature bolls” exist, then an ethephon-based “boll opener” product (e.g. Prep, Finish 6 Pro, SuperBoll, Boll’d, Ethephon 6, etc.) is probably a good selection, as this will open most mature or near mature bolls quickly if good temperatures are encountered after application. Coverage will be important. Do a thorough application job and make sure the bolls get the ethephon. A follow-up application of Gramoxone Max (paraquat) may be necessary to complete crop dry-down for proper stripping. A two-stage application of Gramoxone Max

may also be effective, if only a few bolls are immature.

If the field had considerable open bolls, Gramoxone Max may be the cheapest route to take, but this product may “freeze” some immature bolls. If substantial leaves remain on the plants, then a defoliant such as Ginstar may be added, although it will significantly increase the cost. The addition of Ginstar may also reduce regrowth potential. The one thing to consider is the facts that if temperatures stay warm, and plants have plenty of moisture, expect the regrowth potential to be high. This juvenile tissue will likely be hard to kill, even with high rates of Gramoxone Max. If regrowth is encountered, if possible reduce the aggressiveness of the stripper rolls in order to not “gather up” the regrowth. For more information refer to the [2003 High Plains Cotton Harvest Aid Guide](#). Ginning the cotton quickly will probably help grade-wise, and may be a necessity if the harvested cotton contains a lot of fruiting branches, green bolls, mainstems, leaves, or other foreign material. Coordinate with your ginner to make sure they can “get the job done.”

For those interested, we have updated and completed the [2003 High Plains Cotton Harvest-Aid Price List](#).

Several harvest aid efficacy trials are planned at this time and we will be getting the results communicated as quickly as possible through various media outlets.

Once again, we are seeing some drip irrigated fields with leaf necrosis symptoms ([Lamesa necrosis photos](#)). Only three fields were brought to my attention this year, near Post, Wolfforth, and Lamesa. For an explanation of the theory as to what is happening here see: <http://lubbock.tamu.edu/cotton/2001leafnecrosis/necrosis.html> **RB**

WHEAT AGRONOMY

Wheat for dryland ground cover. A Yoakum County grower inquired about wheat varieties that he might plant on dryland that would get taller, but would also be suitable for grain harvest if sufficient rain was received. The caveat of grain harvest on dryland, however, is that some of the modern semi-dwarf wheat varieties remain so short that if sufficient grain to harvest were present, the producer loses his wind protection as the remaining stubble is so short.

Two older varieties, Triumph 64 and Scout 66, are still available in some areas. These varieties sometimes do fairly well on poor ground, but they are tall. In fact, we are seeing that some of the newer varieties targeting dryland wheat production are again being bred to include some height. Examples include Thunderbolt and Cutter, two releases from AgriPro Wheat, which are both recommended picks from Texas A&M Extension for dryland wheat production. Both are rated medium-tall whereas many other wheat varieties are rated medium and medium short. TAM 111, which is being tested for possible replacement of TAM 105, is also slightly taller, but TAM 111 will not be available commercially until Fall 2004.

Basic best management practices boost wheat forage productivity. I thank my Extension counter-part, Dr. Brent Bean, in Amarillo for contributing to the following information. Producers can achieve good results from a wheat forage program if they follow a few basic best management practices. Forage production varies widely among wheat varieties, and from year to year, but there are a few basic considerations to keep in mind. When choosing a wheat variety, look at seed size, germination and seedling vigor. You want a minimum test weight of at least 56 pounds per bushel and a germination rating of at least 85 percent or higher. Good quality seed is

essential in getting a quick stand, which improves early season forage production.

Try to plant under optimum field conditions (good moisture and soil conditions). Increase your seeding rate when planting under less than ideal field conditions. The seeding rate you use will depend on seed size. Large, heavy seed is preferable to smaller, lighter seed.

Use a higher seeding rate for forage production than you would for grain production and try to sow the crop early, by mid-September. Early-planted wheat will push roots deeper and have a greater ability to use available soil moisture than later-planted wheat, although as noted in the [August 29 FOCUS](#), this is not necessarily so with too early a planting such as in August.

Soil testing will help gauge the crop's fertilizer needs. The general rule of thumb on wheat fertility for grain only is to apply 1½ pounds of nitrogen for every bushel of grain the crop should produce, after residual soil nitrogen is accounted for. About 60 to 80 pounds of nitrogen will be required for each ton of dry forage produced.

If grazing and grain production is your goal, apply about 2 pounds of nitrogen for every bushel of your yield goal, and then topdress the crop at jointing with ¾-pound of nitrogen per bushel of yield goal after you've pulled the cattle off. Don't neglect phosphorus in your fertility plan. Adequate phosphorus promotes early forage production.

Deep banding phosphorus is a better bet than a broadcast, incorporated surface application because it puts phosphorus further down in the root zone where it is less likely to dry out. This is particularly important for dryland production where the surface soil dries out and uptake of immobile P cannot occur. In contrast, N is mobile in the soil, and uptake is usually not a concern. Another P option is to apply phosphorus in the seed furrow at planting--by mixing dry fertilizer with the seed, or by

directly applying liquid fertilizer into the seed furrow. For further information on deep banding of P, consult “Deep Phosphorus Banding in Winter Wheat: A Risk Management Tool for the Southern Great Plains,” by Dr. Travis Miller, available from your local extension office or at <http://lubbock.tamu.edu> then click on ‘other field crops’ then ‘wheat.’

Irrigating in early spring is another good management practice that often returns “the most bang for the buck.” Early spring irrigation promotes tillering and tiller survival. It’s also a good idea to turn cattle out to graze only after tillering has started in the fall, and to pull them off sometime in March. Don’t rely on the calendar, however, as this changes from year to year. The optimum time to pull cattle off wheat is when the first hollow stem appears (jointing). When this occurs can often vary as much as three weeks, depending on the year. Grazing beyond hollow stem stage lowers grain yield potential.

If you want to produce hay from your wheat, consider cutting when the crop reaches the boot stage. Protein content of 20 percent is not uncommon when wheat is booting, but protein content decreases significantly once wheat heads out.

The key to getting good wheat forage yields, and perhaps additional grain yield, is selecting a variety that fits your situation and operation. In addition to beardless wheat varieties such as Lockett, Longhorn, and TAM 109, current suggestions for grazing wheat, especially if growers anticipate going to grain, include Jagger, Custer, TAM 110, and TAM 200. These wheat varieties perform well under a wide variety of conditions.

Nitrogen for grain production only. If grain is desired, establish a realistic yield goal then consider the following: 1) with a soil test, 1.5 lbs. N/bushel of yield goal less adjustment for soil N or 2) without soil test, 1.2 lbs. N/bushel of yield goal.

Growers should limit fall N rates if not seeking grazing, and focus most of the N application in late winter and early spring, especially if you can put N through the pivot. Here’s a scenario that might be appropriate for many South Plains growers applying ~100 lbs. actual N per acre for irrigated wheat: 1) Soil test for residual N; if adequate, credit to fall application, 2) Plant mid- to late-October applying ~30 lbs. N/acre for winter growth, 3) 20 lbs. N late January to mid February, 4) 50 lbs of N at or pre-joint. The preceding program should be adequate for 70-bu/A wheat, but hit the topdress N application harder for a higher yield goal.

In other words, 60-70% of the N is applied in later winter and early spring. If the crop goes through the winter in Feekes stage 3.0 (tillering) to 4.0 (beginning of erect growth), it does not require much N until spring growth. For mild winters, schedule more N earlier. Note that the greatest crop N use begins at jointing. When the spike is differentiating, you must have adequate N not to limit growth.

Rapid N uptake occurs from late Feekes stage 5 (leaf sheaths strongly erect) to about Feekes 8.0 (flag leaf visible), when N uptake slows significantly. At Feekes stage 5, N affects number of seed per head and seed size, but won’t affect tiller numbers or number of heads harvested. Feekes 5.0 is an ideal stage of growth for topdress. Later applications will not affect the potential number of seed per head.

Once the first node is visible (first hollow stem and jointing, Feekes 6.0) all grazing should cease if grain harvest is desired. Good response to topdress N is still possible at Feekes 6.0, but yield response is better at Feekes 5.0.

Occasionally, if a wheat stand is thin, but uniform, an early N application may enhance tillering and thus increase the heads per square foot. All mid-season N applications should be

either topdressed onto dry soil or if available, added through the pivot.

For further information on wheat stages of growth and development, obtain a copy of "Growth Stages of Wheat: Identification and Understanding Improve Crop Management," by Dr. Travis Miller. It is available from county extension offices or <http://lubbock.tamu.edu> then click on 'other field crops' then 'wheat.'
CT

EVALUATING HAIL DAMAGE ON SORGHUM AND PEANUTS

Sorghum evaluation. Obviously, if the leaves are gone at the boot and heading stages the crop is a loss. For less damage, here are the numbers from "Assessing Hail and Freeze Damage on Corn and Sorghum," a TCE document that is in your grain sorghum crop book.

Estimated grain sorghum yield reduction due to leaf removal.*

% Leaf Loss 71 days after planting	% Yield Loss
30	12
60	50
90	55

*First, % leaf loss for plants that are 71 days of age (maturity not specified--this appears to be a medium-early maturity grain sorghum with the crop past flowering and already at grain filling, since the effect of 90% leaf loss was worse at 51 days than at 71 days)

Mean yield decrease resulting from leaf removal from grain sorghum at late boot and bloom growth stages:

% Leaf Loss	% Yield Loss
33	23
50	35
67	43
100	95

Much of the replant or late-planted grain sorghum was near flowering especially if planted about July 1 or a little later. Depending on the leaf loss, (if it was only half for example), there is still some significant yield potential if there was some there to begin with. Available moisture should help.

Evaluating peanuts. Calls on hail damaged peanuts from Dawson and Hockley counties reflect a range of conditions from 20% leaf loss to almost all leaves gone, with stems heavily bruised. Last year, late hail on peanuts in West Gaines County reduced yields up to half, since at digging, the vines were either broken or pegs were broke off.

Fields will vary on a case-by-case basis for peanut losses but Dr. Chip Lee, Extension Plant Pathologist, has suggested that where vines are severely damaged and therefore susceptible to secondary infections from various diseases, that a spray (especially within 36 hours) will most likely hold diseases at bay. He recommended the less expensive products such as Folicur and Bravo. Disease infection will depend on temperature and moisture conditions. Judgments about when to dig and how to handle fragile peanuts when digging will come later. Fields are not mature enough at this point to dig if you fear losing pods.

Later planted peanuts, many of them Spanish, have further to go to reach maturity. With more vegetation on top right above the crown where most of the pegs are, we would hope that the vine damage would have less impact on crop losses. Foliar feeding of nutrients is probably not advised for most peanut crops due to the lateness of the damage, but if the peanuts are late planted then a foliar spray would be more likely to help--if the product performs as claimed. I do not know of any data looking at potential peanut crop growth response at this late stage to micronutrients or other major nutrients. For today's peanuts, as we proceed toward maturity, most of the nutrient uptake in the plants has already occurred, and damaged plants may or may not be able to assimilate additional nutrients sufficiently to make a significant difference.

Significant hail damage has been received on numerous peanut fields since Sunday, September 7th. Several fields have lost all leaves. Fields will vary on a case-by-case basis for peanut losses but Dr. Chip Lee, Extension Plant Pathologist, has suggested that where vines are severely damaged and therefore susceptible to secondary infections from various diseases, that a spray (especially within 36 hours) will most likely hold diseases at bay. He recommended the less expensive products such as Folicur and Bravo.

According to Dr. Todd Baughman, Statewide Extension Peanut Agronomist, it also appears that where leaf losses are less than 50%, now is not the time to consider harvesting the peanuts, especially where leaf loss and damage are low. However where leaf losses are running higher than 50%, especially in the 75-100% range, these peanuts need to be watched very closely. The longer that we can leave these peanuts in the ground the better off they are. As long as the limbs appear to be green and/or new leaf tissue is starting to form, then the peanuts should be left in the ground. However, if limbs that are left start to deteriorate even further and plants begin to die, the best option is to go ahead and dig the peanuts even if they are not

mature. At this stage the remaining pods will not mature and you will start to lose the older pods that are currently on the plant. CT

FORAGE AND BEEF CATTLE TURNROW MEETING

Extension is receiving increased interest in forage and beef cattle production in the South Plains. A turn row meeting is scheduled at the Mike Timmons farm Monday, September 29, 9:00 a.m. to 11:00 a.m. 4 miles west of Brownfield Highway 62/380. Producers can view different summer forage types including brown midrib and photoperiod sensitive forages. Beef cattle grazing management will be discussed. Speakers include Drs. Ted McCollum, Texas A&M Beef Specialist from Amarillo, and Calvin Trostle, Extension Agronomist, Lubbock. For further information contact Jerry Warren, Terry County Extension Agent. CT

MORRISON RETIRES

Dr. William (Pat) Morrison retired from his post as Associate Department Head and Program Leader for Extension Entomology and Agricultural & Environmental Safety on August 31, 2003. Dr. Morrison joined the Texas Cooperative Extension family in December 1975 as an Area Extension Entomologist at the District 2 Research and Extension Center at Lubbock. I joined with him in October 1976. In 1978 he got itchy feet and joined the Entomology Department at Texas Tech University. After three years he decided he missed the Extension family and reacquired his old position in 1981. In 1996 he moved to College Station to assume his last position as Associate Department Head for Extension (my boss).

During his tenure in the High Plains, Pat made many contributions. Two that stand out the most in my mind were his tireless efforts to address the Russian wheat aphid invasion, establishing an outstanding education effort and

linking to research through Dr. Tom Archer and others. For these efforts he received many awards and recognition. He also was largely responsible for the many Section 18's granted by EPA for Azodrin for spider mites in corn.

Pat is a people person and made many friends and allies along the way. I know many in the consulting profession and in Ag industry speak very highly of him. The sorghum, wheat and corn commodity organizations owe Pat a debt of gratitude for his unwavering support. He also provided exceptional leadership in the pesticide arena, especially in the area of

pesticide law, utilizing his past experience gained from working for the New Mexico Department of Agriculture. I know many an individual in TDA that can thank Pat for his assistance.

Pat is a dear friend and colleague. I will miss his sage advice and council. It is my understanding he may move back to the Lubbock area in the not too distant future. Let us hope so. Lubbock could use a few more good people like Pat. **JFL**

**FOCUS on Entomology is published by
Texas Cooperative Extension
Route 3, Box 213AA
Lubbock, Texas 79403**

Editor: James F. Leser
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