

# FOCUS on South Plains Agriculture

*A newsletter from the Texas AgriLife  
Research and Extension Center at Lubbock*



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# Cotton Insects

## KURTOMATHRIPS

This new insect pest has spread substantially since we first identified it 3 weeks ago. Damaging populations have been reported in Gaines, Terry, Hockley, Garza, Lubbock and Hale counties. I suspect it is elsewhere but hasn't been noticed.

What they look like

This thrips is small, very small; at least half the size of a normal thrips. Chances are, unless you are looking very hard with a magnifying glass, you will not pick these up by just looking. You will in all likelihood see the damage first. Most adults do not have wings and the adult appear to be “sculpted” with brown spots or stripes. Additionally, they do not run around like normal thrips but mostly just sit still or walk slowly.



*Adult and immature Kutomathrips*

## Damage

The damage will first show up as bad spots in the field. These may look like a nematode or lightning strike spots, or just a bad spot in the field where it's not getting enough water. These thrips may be on the plants and not really doing much damage. What seems to set them off is a stress event, usually water related brought on by boll filling and insufficient irrigation. At that time they can quickly spread and cause extensive damage in a matter of days.



*Initially infestations may look like nematode spots or a lightning strike*

*continues on next page*





*Damage can spread quickly. Cotton on the bottom was not treated which that on top was treated with Acephate at 8 oz/ac 7 days earlier*

When you decide to back the water off of a field, watch it very closely; this is most likely when this thrips will take off.

#### Decision making

You have to assess whether or not the cotton is worth treating. The question you have to ask is whether there are enough bolls still filling, that can be filled, and that will bring in more income than the cost of the treatment. Some of this cotton just isn't worth protecting, but some other is.

Also we have no idea if thrips damage will interfere with our ability to defoliate; so if the thrips do go through the field and silver the leaves, there is some chance that it may interfere with the effectiveness of the defoliant.

If you have a situation where it's a borderline decision to treat and you are going to be going over the field with glyphosate anyway, then throwing in a \$2.00 per acre shot of an insecticide might not be too big of a risk and worth taking.

## Control

We have identified several products that offer good control. All of these have been used in producer's fields and control has been good.

- Trimax Pro or generic imidacloprids at 1.8 fl oz/ac.
- Orthene or generic acephate at 8 oz/ac
- Intruder at 1 oz/ac

Acephate and the imidacloprid products are going to be the least expensive options, and are effective. Intruder appears to be slightly more efficacious and is more expensive, but is what I would call the premium product. We have a new test out that has some lower rates of these products in it and Centric as well, but I do not have any data available at this time.

Lastly, Dr. Jason Woodward brought some peanuts in last week and we were able to confirm that they were infested with these thrips as well. However, we have not observed any severe outbreaks in peanuts yet.

## WORMS

Well most of this crop is highly unattractive to worms at this point, but there are a few late fields around and bollworms and fall armyworms have hit a few non-Bt fields pretty hard.

If you have only bollworms, a pyrethroid will usually do the trick, but by this time of the year and with the high number of fall armyworms showing up in traps, I bet most populations are mixed.

Pyrethroids are not going to work well on the fall armyworms, so based on tests we conducted last year your best option is to add a low to medium rate of Belt or Prevathon to your spray. Last year, Belt at 2 oz + the pyrethroid looked very good in our tests and performed well in producer's fields as well. Prevathon is a similar product and should also do well used in this manner. DK

# Peanut Disease Update

Things continue to be extremely slow on the disease front as far as peanuts are concerned. I have, however, been receiving numerous phone calls from consultants, industry representatives and producers regarding Southern blight. Southern blight or 'white mold', as the disease is referred to in the southeastern United States, is responsible for major yield losses. The pathogen that causes the disease (*Sclerotium rolfsii*) is widely distributed throughout the state and can commonly be found in peanut fields. In general, Southern blight is more prevalent in the southern part of the state and the Rolling Plains. All of the questions I have received to date about Southern blight have come from High Plains region. I have seen evidence of the disease in several fields from recent trips that I have made through the region. Several things must be taken into consideration when determining treatment options. First off, is there sufficient yield there to protect. The effects of the widespread drought have greatly impacted flowering, pegging, as well as pod initiation and

development. To be blunt some of the peanuts there may not be worth protecting. More importantly, however, is the level of disease. It is not uncommon to see sporadic occurrences of Southern blight any given year. Fungicide applications made to protect against pod rot appear to suppress Southern blight. So there is the potential for increased incidence of Southern blight if pod rot applications were avoided due to the hot dry conditions; however, the level of Southern blight pressure I see on the High Plains is moderate at best.

The most severe Southern blight I have seen this season is occurring under two scenarios 1) in areas where water is pooling due to a leak in the irrigation line and 2) in fields experiencing excessive fluctuations in soil moisture between irrigation events. Physically monitoring disease development is also important when considering fungicide applications. The majority of fields exhibiting symptoms of Southern blight show little activity of *S. rolsii* in the lower canopy. When dealing with aggressive populations of the fungus, it is common to see the disease progress down long portions of the row; similar to what we see with Sclerotinia blight (Figure 1), which is essentially non-existent this year. The appearance on the fungus in the lower canopy can be an indicator as to how the disease may develop. For example, if the fungus is actively growing with mycelium (the white moldy growth) bridging the space between plants (Figure 2), killing numerous plants and producing a large number sclerotia then there is the potential for yield loss. However, if the fungus is restricted to the crown area or a few lateral branches and relatively inactive then yield losses will not occur. When scouting for Southern blight, keep in mind that the fungus can also affect pegs and pods below ground with little to no evidence of the fungus on the soil surface (Figure 3). Furthermore, there is a saprophytic fungus that resembles Southern blight that possesses no threat to yield or vine integrity. One way to differentiate the two is to closely examine the affected area. If the fungus is easily removed with your finger and the underlying tissue is not degraded then you are dealing with the 'tooth fungus' that will not affect yield. If you have any questions related to peanut diseases, feel free to give me a call at 806-632-0762 or send me an e-mail at [jewoodward@ag.tamu.edu](mailto:jewoodward@ag.tamu.edu). JW



Figure 1. Typical field symptoms of Sclerotinia blight Southern blight.





Figure 2. Actively growing mycelia of *Sclerotium rolfsii*, causal agent of Southern blight. Note the profuse growth between stems and lateral branches and abundant production of sclerotia.



Figure 3. Symptoms of Southern blight affecting pods below ground with no evidence of fungal growth on the soil surface. Note the ashy gray appearance.



# Corn and Sorghum Insects

## AGRISURE VIPTERA 3110 AND 3111

Syngenta's Agrisure Viptera corn, a transgenic type that contains the MIR162 (Vip3A) trait for control of Lepidoptera (caterpillars), is going to be rejected at some elevators this year (pending legal action). At least two grain companies, Bunge and Consolidated, have announced they will not accept the corn because the Chinese government has not yet approved import of this grain. Presumably, the companies do not want to risk having any Viptera corn in their grain channels because it might end up in China. Specifically, the corn with the toxin that will not be accepted is sold as Agrisure Viptera 3110 and Agrisure Viptera 3111.

Syngenta filed a complaint in the U.S. District Court in Iowa against Bunge North America for having violated Federal and State laws. Syngenta is alleging Bunge is attempting to block the legal merchandising of products that are in compliance with all U.S. regulatory requirements and industry guidelines for commercialization. (This paragraph was paraphrased from a Syngenta press release.)

Syngenta has established a communication channel for growers, seed dealers and seed retailers who have questions. E-mail can be sent to [Export.Info@syngenta.com](mailto:Export.Info@syngenta.com). The telephone number is (800) 319-1360 and will be active from 6 a.m. through 11 p.m. Monday through Saturday. A web page has also been established at <http://AgrisureViptera.com/exportinfo>.

Most Viptera corn seed was sold in the Midwest; Iowa, Illinois, Indiana and Nebraska, but there was also some sold in the Mid-South and on the High Plains of Texas.

### **Here are some things to consider**

1. It is the case that, for the most part, the grain supply in the U.S. is not isolated into discreet channels and it may be logical for local elevators to reject Viptera corn if they intended to sell into the larger grain market rather than direct the corn to a specific local use (like a feedlot).
2. Viptera pollen can be carried in the wind and "contaminate" other types of transgenic and non-transgenic corn. The pollen would bring genes for the toxin, and the toxin would be present in detectable amounts in the grain of non-Viptera corn that had been "contaminated". The test kits used by elevators, exporters and importers are sensitive enough to detect the Viptera toxin in such grain. Any detection can result in rejection. One provider of check strips for Vip3A in bulk grain is Romer Labs (<http://www.romerlabs.com/en/products/agrastrip.html>).
3. The Viptera toxin will also be detected in distiller's grains made from Viptera corn, and distiller's grains are sold to China.
4. Syngenta is suggesting three options for the time being while the legal system considers this matter. A) delivering to elevators accepting the Viptera trait, B) delivering to local feedlots, feed mills or ethanol plants that do not export Dried Distillers Grains to China, and C) storing Viptera corn until the Chinese export approval is received. It is expected in March 2012. (This paragraph was paraphrased from a Syngenta letter to corn growers.)

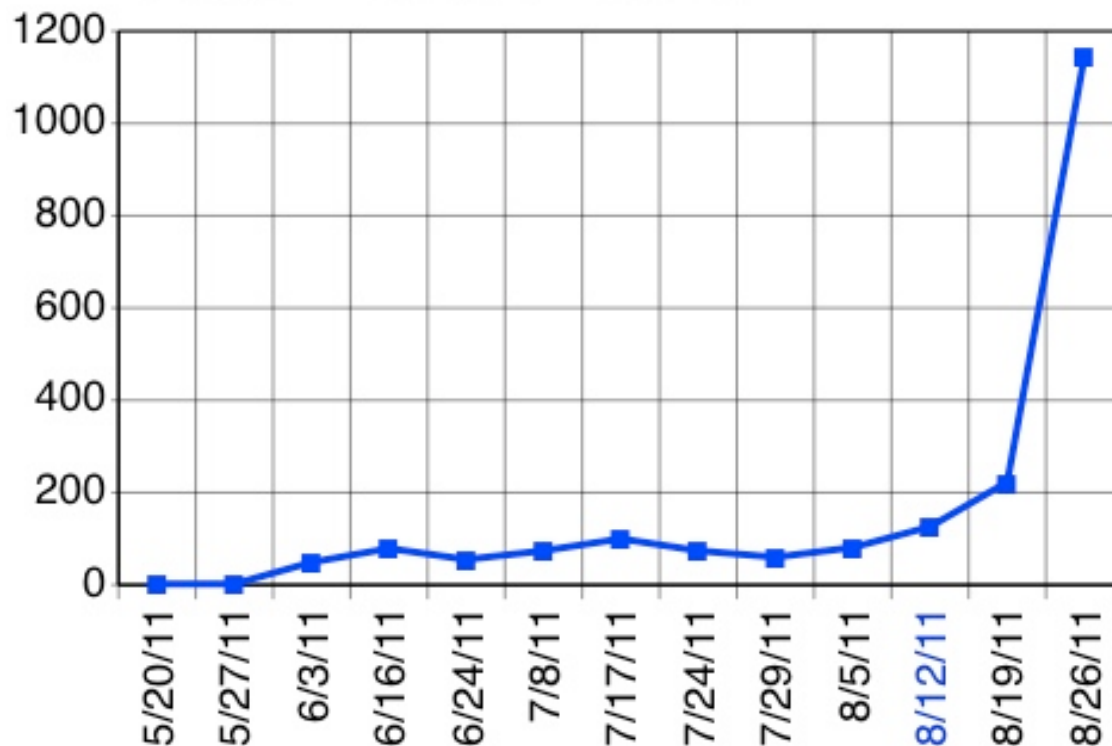
We do not expect this to be a significant problem in the Panhandle, and to date there are no reports of grain elevators in the Texas High Plains planning to reject delivery of Viptera corn. But, as further developments occur, anyone who is growing Viptera corn should contact their grain buyer to determine whether the grain will be accepted at the elevator. Additionally, if any grain elevators are not going to accept Viptera corn, or are going to dock for it, it would be a good idea to consider testing other types of corn grown near Viptera corn fields in order to determine whether "pollen contamination" has occurred at detectable levels.

There is a full article on this issue in AG Professional at <http://www.agprofessional.com/newsletters/agpro-weekly/articles/Viptera-corn-being-rejected-by-grain-buyers-127724248.html> . Pat Porter and Ed Bynum

## FALL ARMYWORM FLIGHT PEAKS AT HIGH NUMBERS

In what may signal a sorghum headworm problem around the corner and damage to forage sorghum and late corn, fall armyworm moth captures shot up this week to over 1,100 per trap (see the graph below). That is the bad news. The good news is that the numbers in the traps started to taper off a bit in the last two days. This indicates that the peak flight has occurred and we can expect lower numbers next week. RPP

### Fall armyworm moths per trap per week, Lubbock Research Center



# Non-Cotton Agronomy

## CONSIDERATIONS FOR FALL FORAGE PLANTING

Numerous Extension agents, producers, and other colleagues have indicated a steady stream of questions about what is available for forage planting for this fall that producers can get something--anything--that could provide some relief. Of course, right now we are stuck with irrigated farming (a surprise to see a couple of fairly good dryland sorghum/sudan fields in Cochran Co. last week!).

### Small Grains

Seed supplies on some small grains, especially rye and triticale, are already sold out with some dealers, so check for availability, especially if you are looking at immediate plantings for grazing and forage. One dealer has indicated that more triticale will become available as seed block harvests from south central Colorado is conditioned for sale.

Remember that wheat, rye, triticale, oats, barley are cool-season grasses. It is not a good fit to seed these when it is still hot. This is not necessarily because you may have trouble getting a stand (you might), but when you seed a small grain in mid or late August water use efficiency will decline.

### Moisture Use and Efficiency

Earlier planted small grains used moisture much less efficiently because a) those first irrigations (in August) evaporate more, and/or b) one month (September) and two months (October) later the plants are using more of your very limited water because it was planted earlier, and the plants are bigger. The moisture is being used quicker and is having less to show for it due to reduced amount leaf and forage produced per unit of water due to hot conditions. This is apart from the fact that fields being so dry might require several inches of irrigation just to get a crop started and put some moisture in the profile so normal rooting can occur.

### Dormancy Issues in Some Small Grain, esp. Wheat, with Early Planting

Extension has not said much about this in the recent past, but some varieties of wheat in particular, have significant dormancy issues and will not germinate very well when it is hot or soil temperatures are still summer like. I recall that beardless 'Longhorn' is one such wheat, and in some years you might not expect it to germinate very well until it cools off some (early to mid-September?).

I recall that soil temperatures above 85°F, which are readily achieved with our current daytime temperatures, is where researchers have expressed concerns about high temperature germination.

An additional list of wheat varieties that demonstrate sensitivity/dormancy is published in “Wheat Varieties for Kansas and the Great Plains, 2010” (Lone Tree Publishing, Topeka, KS; Steve Watson, editor):

“High Temperature Germination Sensitivity”

Below Average	Average	Good	Very Good
2174	2137	Coronado	Billings
Centerfield	Fannin	Deliver	Duster
Danby	Fuller	Doans	Endurance
Overley	Jagalene	Dumas	Jagger
Shocker	TAM 111	Jackpot	OK Bullet
TAM 203	TAM 304	Karl 92	OK Rising
		Sante Fe	Pete
			TAM 112

I am not aware of temperature sensitivity of other small grains. Several years ago the triticale folks (Ron Kershen, others) suggested that triticale could be planted 2-3 weeks earlier than wheat with little concern for possible temperature issues. My argument against planting triticale earlier was largely based on excessive moisture use.

### Planting Dates

Pressure is on producers and those with cattle to plant as soon as possible in the hopes of getting forage sooner. If this is necessary, then I would encourage growers to spread their planting dates out to reduce risk from heat and temperature. If a producer needs to plant 480 acres, then do two half circles August 15-25<sup>th</sup> (adjust based on target dates noted below; already past for much of the region in 2011, but with hot temperatures we still have, this is not a concern), and two more half circles a week later. Then plant the bulk of the remaining small grains another 7-10 days after that, depending on where you are located. This will provide the initial forage for a flash grazing while other forage comes on under more efficient moisture use conditions.

For wheat, I have long suggested the following general targets for seeding for fall grazing:

Northwest Texas South Plains	September 1
Central South Plains (Lubbock area)	September 7
Lower South Plains (Lamesa area)	September 10-12

This allows some temperatures in general to cool a bit, but retains high fall forage potential. In contrast seedings that occur at the end of September some years may not provide significant fall grazing potential in some years. Ted McCollum, beef cattle Extension specialist, Amarillo, has noted that it is essential the stocker/wheat grazing system provide fall grazing to enhance profitability.

What about other small grains and planting dates? As noted above, some industry colleagues believe triticale is better suited to earlier plantings than wheat. I am not sure about



barley or rye. I believe oats are likely more susceptible to warm temperatures if planted early, but then we have winter oats and spring oats, which may perform differently.

## Fall Forage and Worms

Currently in 2011 worm pressure for fall army worms, beet army worms, etc. is high. Based on current levels of infestation in existing stands of sorghum/sudan, corn, grain sorghum, etc. producers need to keep a close eye on any new forage, including small grains, that comes this fall.

## Grazing and Hay Potential for Small Grains

What several farmers are wanting is to be able to grow hay they can sell in November and December. This may complicate decisions on how to approach growing wheat and other small grains for a fall 2011 harvest. With prices anticipated to be very high, easily over \$200/ton, then we can consider different management options. But we do not want to hay the crop off without leaving enough to get good regrowth and continue some winter and especially spring forage production.

My advice so far has been to plan for grazing, and perhaps there is 10 to 20% chance you have the good upright growth so you can get a hay harvest—if you go heavy on inputs. Grazing is the best way, especially if you have your own cattle, or someone can bring them to you. The needed fall growth for haying, however, will require substantial irrigation inputs, but in dry years still may not deliver as much forage as we'd like. Additional concerns about late fall/early winter haying expressed by colleagues include:

- Even if forage were to obtain sufficient height to swath (12"?), the forage will be mostly leaf, even for upright forage types like triticale and beardless wheat.
- This forage may not dry quickly and could be on the field for many days.
- Once dry the forage will have little weight (mostly leaf for prostrate varieties) and could blow out of the windrow.

Wheat—In addition to the possible temperature and dormancy issues, the potential to hay wheat in the fall is suspect. Most wheat varieties have a prostrate growth habit when means they lie flat on the ground. Yes, with excellent growth by December you could have a 'canopy' of wheat that is 10-12" tall, but a swather won't get a lot of it (but that may not be bad because you don't want to remove all of the leaf area anyway to retain vigor in the stand). If fall hay is truly the goal, then I suggest you consider some of the beardless wheats which to my knowledge are mostly upright in their growth habit. These include WeatherMaster 135, El Dorado, AgriPro's 'Longhorn,' I believe TAM 109, but I can't recall about TAM 401.

Seeding rate: 90-120 lbs. for good irrigation. If the opportunity arises to seed dryland, then consider about 50-60 lbs./A. When fall grazing is desired, higher seeding rates are merited, but if a crop is planted for spring hay only then ~60 lbs./A would be adequate in most cases.

Cost range per 100 lbs.: \$25-35

Rye—Forage production in past Texas AgriLife fall tests has been comparable to wheat, but not better. Most rye that is marketed is a "strain cross" that is derived from planting several

varieties like Maton, Elbon, Oklon, and Bates together. Rye is sometimes noted as being more cold tolerant, but for fall production this is not likely an important factor. Rye does tend, however, to demonstrate better late fall and winter forage potential under cold conditions (see graph below).

Seeding rate: Rye seed tends smaller than wheat so rye seeding rates 10-20% less than wheat noted above would be suggested.

Cost range per 100 lbs.: \$25-38

Triticale—As noted above triticale has been suggested for earlier small grains plantings when temperatures are hotter though this practice has its potential downside. This has not been tested by Texas AgriLife. Also, some triticales are spring type and it is not recommended that spring types be planted early (some has suggested that it is OK after about Sept. 20<sup>th</sup>, e.g. T-2700). Regional forage trials have noted significant differences in winter hardiness and performance thus we recommend that you stay with varieties that have proven performance in the region. If you are offered a triticale line that hasn't been grown here before then you may wish to decline.

Triticales are more likely than conventional bearded wheat to have an upright growth habit thus may have more forage potential in a fall swathing. Overall, forage potential from fall forage production of triticale in Texas South Plains forage tests in 2003-2004 was comparable to wheat, but numerous other tests do suggest that triticale can have somewhat higher forage yields.

Some triticales varieties are nearly beardless ('awnletted' in contrast to true awnless, or beardless). These are popular in blends. One example is 'Trical 348' which has been planted as part of blends and recently sold by itself provided the grower signs an agreement that he will not collect any seed. Currently, however, I do not find Trical 348 listed by itself for sale.

Seeding rate: Triticale seed typically is about 15-20% larger than wheat, so higher seeding rates per acre are required to accomplish the same think stand.

Cost range per 100 lbs.: \$28-40, higher than wheat.

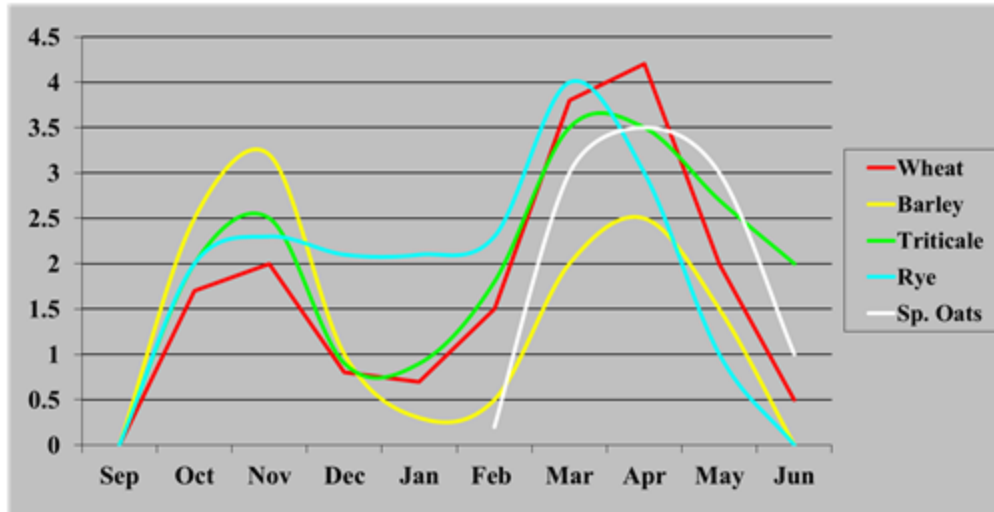
Barley—I note this primarily because of a slide that Amarillo Extension agronomist Brent Bean shared several years ago (see below). This slide is a representation of barley and other small grains drawn to depict typical expected forage production in the region. We believe barley is the best for fall grazing, tolerates late summer heat, but is more susceptible to winterkill especially if overgrazed. Barley in Texas AgriLife trials at Lubbock in 2003-2004 yielded well in the fall, but struggled to survive an average winter and was highly susceptible to yellow sugar cane aphid (which vectors barley dwarf mosaic virus), which nearly killed the stand in late December. Barley is the salt tolerant standard of small grains and should produce the same high quality forage. Its growth habit would be most similar to wheat (largely prostrate).

Seeding rate: Likely similar to wheat; check with seed dealer.

Cost range per 100 lbs.: Unknown



## Relative Forage Production of Small Grains



Oats—My experience with oats in the Texas South Plains is restricted to winter seedings of both winter and spring oats for forage production on irrigation. Winter oats, which in Texas would largely be the grain varieties like Bob, Jerry, Dallas, Chilocco, Nora, etc. do not produce as much forage as the spring oats (when planted in the spring). Spring oats planted in the fall will face a significant likelihood of winter freeze and poor survival. How these oats will yield forage in the fall if planted now has some good potential based on what I have been told. Spring-seeded spring oats have yielded well in the Lubbock region including Troy, Monida, Magnum, and Charisma. One long-season winter oat grown in the region is Walken, which has a largely prostrate growth habit.

Seeding rate: 90-100 lbs. for good irrigation (1 bushel = 32 lbs.). If the opportunity arises to seed dryland, then consider up to 2 bushels/A.

Cost range per 100 lbs.: Unknown

### Small Grain Forage Notes from Other Regional Texas AgriLife Staff

- David Drake, San Angelo: In this area I would favor planting oats, triticale or perhaps rye, and then wheat, in that order. Barley did very well two years ago but it was very wet; it has a large leaf and can produce a good amount of grazing like the graph above suggests but I am concerned about the heat in the Concho Valley region. Winter oats are routinely planted here in August and September for graze out. I think it handles the heat better than the other small grains and we avoid Hessian fly troubles.
- Todd Baughman, Vernon: In my experience with cover crops rye performs the best when planted under hotter and drier conditions. It has a larger deeper root system and seems to tolerate the heat and dry better than wheat. It actually grows under these conditions

instead of just sitting there. Rye also seems to do the same planted later growing under cooler drier conditions. However, rye will mature faster and play out earlier than wheat. So good for fall grazing not as good for late grazing. Barley and oats have been average at best in Rolling Plains trials. Good early producing wheat varieties in the Rolling Plains are Fannin and Jagger, and Endurance and TAM 203 also do fairly well.

#### What Prices are Different Forages Currently Selling For?

A hay market report is released every Friday by the USDA office in Amarillo ([http://www.ams.usda.gov/mnreports/am\\_gr310.txt](http://www.ams.usda.gov/mnreports/am_gr310.txt)) Prices are mostly for alfalfa, but other hay such as bermuda, sorghum/sudan, even wheat straw are sometimes listed. Be sure to note whether price is delivered or not.

#### Are There Other Forage Options?

##### Sorghum/Sudan and Millet

Some producers are still asking about sorghum/sudan and haygrazer. I believe we are now too far along in the summer to consider planting any of this warm-season annual. Extension colleagues believe that down state it may still be a viable option if planted right away (and they think we still might find this a better bet than getting a hay cut from fall small grains in the Texas High Plains). For the Texas South Plains I have recommended that sorghum /sudan can be seeded in a late plant/replant situation up to about August 1 around Lubbock in “normal years”, and a few days later at Lamesa. The potential for significant growth now is low as by the time you seed, get a stand, and move through the seedling stage we will be into mid-September facing cooling temperatures. This will depend a lot on the weather, seedling vigor, and how soon cool fall temperatures occur. For early August plantings we anticipate you are near 4', maybe even 5' tall by early October for some hybrids. But that requires inputs. At this point I certainly would prefer we focus on small grains, which if they do well you will also have late winter and spring forage production. For comparison, some sorghum/sudan planted about July 15<sup>th</sup> in Cochran Co. on dryland was about 12-14" tall by Aug. 16th.

One year of data from Amarillo-Bushland was collected in 2001 for sorghum/sudan, millet, photoperiod sensitive sorghum/sudan, and forage sorghum when planted on July 12, July 27, and August 15. Surprisingly, up to 4 dry tons were produced even at the August planting date though a hard freeze did not occur until November 12 (about two weeks later), 2001 was a relatively hot year, and 9" of rain fell in August-October, and 2.4" more in July. I am skeptical that these results could be repeated without significant irrigation and inputs. These results, however, may be of interest in future years when forage is needed if we can at least plant in the South Plains by mid-August.

##### Annual Ryegrass (in contrast to perennial ryegrass)

I have no direct experience with annual ryegrass though lot of this cool-season annual is used in Texas to thicken warm-season perennial grasses and extend the grazing. I understand that a dairy in Lamb Co. has used this some years to obtain fall silage. Dr. Larry Redmon, Texas AgriLife state forage specialists believes that annual ryegrass could be competitive in the South



Plains as emergency forage for hay. He notes, however, that annual ryegrass is sensitive to soil temperatures, and should not be planted in a prepared seedbed more than 8 weeks before your first average freeze date (Oct. 22 at Muleshoe, Oct. 31 at Lubbock, Nov. 3 at Lamesa), or if overseeding then about 6 weeks before the first average freeze.

Others have commented that annual ryegrass generally produces most of its forage in the spring so this doesn't answer our immediate needs for forage. It is best mixed with small grains to extend the grazing period further in late spring and early summer. Furthermore, if any ryegrass is not managed properly and it goes to seed, you could have weed problems for several years.

A brief annual ryegrass item is posted by Oklahoma's Noble Foundation at <http://www.noble.org/Ag/Forage/AnnualRyegrass/index.html> I will look to add a Texas resource to this as soon as I can find one. New Mexico State University notes that annual ryegrass can be suitable forage across the southern half of the state, but perennial ryegrass is not recommended in NM.

Seeding rate: 20-25 lbs./A. for irrigation though special seeding equipment might be needed.

Cost range per 100 lbs.: \$50-60

Black-eyed Peas (summer), Austrian Winter Peas (cool-season), Hairy Vetch (cool-season)

These legume crops draw interest, but are prone to high seed costs. Though BEP is a short season crop, I don't believe it would produce nearly enough forage and will shut down as cool arrives. AWP and HV in my opinion from plantings I have made in the past will not grow quick enough if planted now to produce the forage in a manner that can be harvested for hay. They produce most of their forage in the spring anyway. The potential advantage of these legumes fixing N and thus adding N to the soil is low as my experience is that we don't get that good of nodulation on the roots. CT

### Managing Alfalfa Stands During Loss of Irrigation

New Mexico State University staff at Tucumcari and Clovis has published a current newsletter discussing loss of irrigation water on alfalfa, how the stand will be affected, and what to expect. The news is encouraging in that alfalfa can withstand extended periods of drought then return to nearly full production after 2 years even if plant and stem number decline some. For a copy of the August 2011 'Hay Market News' contact Calvin Trostle or NMSU's Mary Curtis, [marcurti@nmsu.edu](mailto:marcurti@nmsu.edu)

## CORN GRAIN YIELD VS. SILAGE YIELD

Some producers in the South Plains are still making the decision on whether to harvest their corn for grain or to cut it for silage. Is your irrigation running out? Does it appear that you might have trouble finishing the crop?

## Yield Estimation

### 1) Corn for Grain

The first step in making this decision is to estimate, value, then compare potential grain yield vs. potential silage yield. Grain yield can be estimated by using the following formula:

$$\frac{(\text{Number of ears per } 1/1000^{\text{th}} \text{ acre}) \times (\text{Number of kernel rows per ear}) \times (\text{Number of kernels per ear})}{85}$$

= Estimated bushels/Acre.

\*For 30" rows, 1/1,000<sup>th</sup> acre is one row X 17' 5" long; for 40" 1/1,000<sup>th</sup> acre is one row X 13' 1" long

For more information on estimating corn grain yield see "Estimating Corn Grain Yield Prior to Harvest" from Purdue University, <http://www.agry.purdue.edu/ext/corn/news/timeless/YldEstMethod.html>

### 2) Corn for Silage

Estimating silage yield is dependent on plant population, height of the corn, and grain yield. Assuming 'decent' grain yield and a plant population of approximately 32,000/acre, then 2.5 tons per foot of height is a 'reasonable' estimate of yield. So, 7' tall corn would be expected to yield 17.5 ton/acre.

- If very little grain is present, then multiply height by 2 instead of 2.5.
- For high grain yielding corn multiply height by 3.

Once these yields have been estimated, then the producer can compare the return of each, keeping in mind grain harvest cost and the addition of probably at least two more inches of irrigation water that will be needed to finish out grain production. Also keep in mind that more P and possibly N will be removed in a silage crop compared to grain. These nutrients will have to be replaced by applying more fertilizer next year. Brent Bean

# FOCUS on South Plains Agriculture

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