



## **Peanut Production ‘Keys & Concerns’** Texas South Plains

‘Top Five’ thoughts from area peanut producers, consultants, buying point/shellers, and Texas A&M Ag. Program staff about what we may do right, what we may do wrong, in West Texas peanut production.

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Solicited and compiled by

Calvin Trostle  
Extension Agronomy  
Texas A&M—Lubbock  
Route 3, Box 213AA  
Lubbock, TX 79403  
(806) 746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

*Suggestions to improve and expand this document are welcome. We wish to eventually include irrigation, plant pathology, and further industry and producer thoughts. Please contact Calvin Trostle.*

## Keys for Successful Weed Management in Peanuts

Peter Dotray, Extension/Research Weed Science, A&M/TTU, 806-742-1634, [p-dotray@tamu](mailto:p-dotray@tamu)

- 1) **Know your weeds.** Successful weed management starts with knowing the types of weeds you are trying to control. Many weeds look similar, but may respond differently to mechanical and chemical weed control. It is first and foremost important to properly identify the pest we are concerned with. There are several weed identification references available in text and on the Internet.
- 2) **Know all weed control options that are available.** We generally think of herbicides as the only option for weed control. However, other options include physical (hand pulling and hoeing), mechanical (plowing, cultivation), cultural (seeding date, seed population, row pattern, crop rotation, variety selection), biological (use of insects, mites, diseases, and other biological control agents), and prevention (weed seed dissemination by seeding and movement of equipment). Chemicals in combination with other methods often may be more successful than herbicides alone.
- 3) **Know what your herbicides can and cannot do!** Sometimes we fall into the trap that all herbicides are alike. In fact, they can be quite different. Differences may include water solubility (movement in soil), soil activity, length of soil activity, movement in the plant, spectrum of weed activity, ability to volatilize and move off-target, etc. Knowing what our herbicides can and cannot do will help use make better choices on which herbicide to choose in light of the weeds present, rotational crop concerns, and if additional weed control help is needed. Always carefully read and follow labeled instructions and pay close attention to rotational crop restrictions, weed size, and the addition of spray additives (crop oil concentrate, fertilizer, non-ionic surfactant, etc.).
- 4) **"Yellow" herbicides are a good foundation for weed control.** The dinitroaniline herbicides (Prowl, Sonalan, Treflan, others) are effective on annual grass and small-seeded broadleaf weeds. The success of these herbicides is based on using appropriate labeled rates for your soil type. Uniform incorporation of these herbicides is critical to ensure germinating weeds come in contact with the herbicide prior to emergence. These herbicides can also be used in minimum tillage situations where water is used to incorporate. Keep in mind this may not be the best way to incorporate them, but may be the best way under reduced-tillage cropping systems. Rates for water-incorporation are generally higher than rates for mechanical incorporation, so follow label recommendations for your soil type. With overhead irrigation, it is necessary to apply from 0.75 to 1.0 inch of actual water for proper incorporation of the yellow herbicides. The current Prowl label allows for preplant chemigation or a surface application followed by water and preemergence chemigation or a surface application followed by water. The current Sonalan labels states that Sonalan may be surface-applied followed by irrigation.
- 5) **Start with a clean seedbed.** Winter weeds and early-emerging summer weeds, like tumbleweed, should not be present at the time peanut are emerging. Early-season weed competition can slow peanut growth and compete with the crop for water and nutrients. The

most critical time for weed control is the first 4 to 6 weeks of a peanut life. This is the time that weeds can have the greatest impact on peanut yield.

- 6) **Are additional soil-applied herbicides needed?** The "yellow" herbicides are effective on annual grasses several small-seeded broadleaf weeds, but some escapes will occur. Nevertheless, several larger-seeded broadleaf weeds such as morningglory, cocklebur, and sunflower species, and perennials such as yellow and purple nutsedge and silverleaf nightshade (whiteweed) are not effectively controlled. Control of these weeds may be enhanced by using preemergence herbicides.
- 7) **Properly timed postemergence herbicides are most effective.** The success of herbicides applied postemergence is largely dependent on weed size and coverage, which often go hand in hand. Be careful not to exceed weed size restrictions according to the herbicide label. Use crop oil concentrates or other adjuvants if specified on the label. Use an appropriate carrier volume to ensure thorough spray coverage on the weed. A weed that does not come in contact with the herbicide will not be controlled. Not all herbicides have broad spectrum activity, so match the postemergence herbicide with the weed(s) you are trying to control. Postemergence herbicides will be more effective when applied to non-stressed weeds, which often coincides with the first part of the growing season. Controlling weeds early is when you can achieve your biggest bang for your buck, the time at which weed competition is at its peak.
- 8) **Be careful of crop injury.** It is very important to understand the potential causes of herbicide injury. The following is a list of potential causes: spray-tank contamination, improper sprayer calibration, excessive herbicide rate for the soil type, improper herbicide application timing or method, failure to adhere to crop rotation restrictions, interaction with other pesticides or spray additives, application of herbicide to crops under stress, off-target drift of herbicides labeled for use in other crops, small concentration of herbicides in irrigation water, and normal herbicide symptomology.
- 9) **Scout fields for unusual weeds.** Although weed resistance may be over stated in most cases, we need to watch for weed control that decreases over time. A buildup of resistant weeds does occur quickly, so be watchful of poor control over time. Similar to weed resistance, be watchful of new weeds in the area and new weeds per section of land. New, difficult-to-control weeds should be a top priority so small infestations do not become bigger problems.
- 10) **Weed control starts in the fall of the year.** After peanut harvest, the fall months are good times to work on perennial weed patches. Systemic herbicides like Roundup, 2,4-D, and Clarity can be very effective because these herbicides are absorbed by leaves and move below ground and disrupt storage tissue. This disruption should allow for fewer plants to emerge the following spring. Make sure that applications are made prior to the first frost. Applications after freezing temperatures have occurred will be much less effective due to decreased absorption and translocation.

## **Peanut Production Keys and Concerns**

Calvin Trostle, Extension Agronomy, Texas A&M-Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

The following observations represent a combination of research experience coupled with production observations and farmer visits since 1999. These are not necessarily ‘most common’ keys and concerns but reflect considerations for peanuts.

### **Keys—What Farmers Do Right in West Texas Peanut Production**

- 1) Managing peanuts for maturity, not necessarily earliness.

We sometimes take on the cotton mentality that getting the crop out early is a good thing, always a good thing. The risks associated with weather damaging our crop, cotton or peanut, are real the longer they remain in the field. For peanuts, a timely, mature crop is the combination of several things: planting, stand establishment, maintaining a healthy crop, recognizing when water quality might create early vine decomposition, digging decision (wait longer?). High numbers of peanut acres, like having too many things to do, means that some of our important business is conducted at less than optimum time, and the quality of our work—or peanuts—declines.

- 1) Evaluating early-season *Rhizobium* nodulation and crop status before automatically applying N fertilizer.

This two-fold achievement in my opinion begins not with just trying to ensure you have done the best job you can at planting and applying your inoculant. It begins with checking all your equipment (drop hoses, nozzles, direct perfect in-furrow application of inoculant). Then checking your results (nodulation) at a time when you may adjust an N program to either save fertilizer or add more if nodulation was not achieved. Remember, N fertilizer is not ‘good or bad,’ rather it another input to manage with the best knowledge we can muster of what our potential for its effect is.

- 2) Soil testing. In the late winter. Allowing enough time to digest the results. Planning your fertility program accordingly.

First, a soil test tells you about your last crop. Was it treated well nutritionally? P and K are best placed in peanut by fertilizing the previous crop. A soil test can readily tell us about P and K status, both of which are hard to show a response to. It also can allay potential concerns about spending money on calcium.

- 3) Being aware of industry and marketing issues.

Well-informed producers understand what they need to do in their own cropping as well as provide leadership beneficial to all growers. Being informed makes necessary changes and improvements in a producer’s operation easier to implement.

- 4) Supporting our peanut organizations and representing our product.

Whether it be a voice in Washington or Texas producer issues, a strong voice for the West Texas peanut industry is necessary in the face of a U.S. population which continues its move toward urbanization. No one else is obligated to speak for West Texas peanuts and our product, conduct our education, or fund our research. Our organizations are first in addressing these needs. They need our full support.

## **Concerns—Common Mistakes in West Texas Peanut Production**

### 1) Overestimating irrigation capacity for peanuts.

We need to be honest with ourselves about what we can and cannot do. Why are long-time corn producers in Moore Co., Texas, having farm sales in the winter of 2003-2004? I believe it is in part because they stayed with full acreages of corn (and tried to irrigate fully) too long in the face of declining water resources. In essence, they farmed corn too long or farmed full circles (compared to half a circle and maintaining good irrigation on fewer acres) and they lost profitability, but they wouldn't change their management to fit the limitations.

We put too much effort, inputs, and money into peanuts to risk the crop in a dry year. If having a dry summer puts a producer on the edge with regard to peanuts he needs to not grow or reduce acreage to preserve irrigation capacity per acre.

### 2) We must place a value on our irrigation water for peanuts.

Peanuts produce more value per 1" of water than most crops. But the per-unit cost of production is also higher. Producers must not ignore the question 'what is my water worth?' Understanding the value of that water for peanuts and the return potential should give us incentive to sharpen our peanut management—because peanuts are worth it.

### 3) Lack of minimal crop rotation (at least two crops between peanuts).

Why does Central Texas produce very few peanuts anymore? Lack of rotation. Perhaps we thought with high O/L runners we had a special place in the market for we could grow the initial varieties, which have minimal disease resistance, whereas the Southeast could not. But that possible advantage is disappearing. Rotation pays in the long run because the risks in disease, reduced productivity, etc. are real in peanut production.

### 4) Planting too many acres of peanuts to manage well diminishes the advantage of peanuts.

"I have got to get started planting" or "I have got to start digging" because of how many peanut acres I have. Peanuts are a crop that sometimes the best thing you can do is 'do it at the right time' which means waiting (warm up to plant, cool down to harvest, reach the appropriate stage to spray).

### 5) Asking enough questions to ensure you are planting high quality seed. As an industry are we planting the best seed we can get?

The analysis tag on a bag of peanut seed uses seemingly low germination percentage (75% or 80%). Is that satisfactory? In other crops I work with seed quality is foremost among the success of a particular crop, often more so than the variety itself (e.g., wheat and small grains, guar, alfalfa, sunflower; witness also the importance of the cold vigor test and germination in cotton). In the variety trials occasionally we see slowed stand establishment, thin stand, etc. If attributable to poor seed quality, could this be avoided?

## **Peanut Production Keys and Concerns Entomologist Observations, Texas South Plains**

Pat Porter, Extension Entomology, Texas A&M—Lubbock, 806-746-6101, [p-porter@tamu.edu](mailto:p-porter@tamu.edu)

Scott Russell, Extension IPM, Terry-Yoakum Cos., 806-637-4060, [s-russell@tamu.edu](mailto:s-russell@tamu.edu)

Kerry Siders, Extension IPM, Hockley-Cochran Cos., 806-894-3159, [k-siders@tamu.edu](mailto:k-siders@tamu.edu)

The following observations represent research, Extension, and IPM testing and observations in the Texas South Plains.

### **Keys & Concerns/Right & Wrong in West Texas Peanut Production**

- 1) Don't use an at-plant insecticide for thrips. While thrips damage is common in the early season, it does not affect yield significantly. There is no need to treat for thrips.
- 2) Some thrips vector tomato spotted wilt virus, but you can't control the spread of the virus by trying to control thrips.
- 3) There are four common species of foliage feeding worms. They all do the same type of damage, and about the same amount of damage, so you can lump them all together when counting worms per foot of row.
- 4) Foliage-feeding worms reach threshold in runner peanuts at 10 – 12 worms per foot of row. For Spanish peanuts, the threshold is 6 – 8 per foot of row. However, you should check the field one more time before you spray for worms, because beneficial insects often reduce worm populations below threshold levels in just a few days.
- 5) Grasshoppers move in from field margins, and are much more difficult to kill when they are larger. It is best to spray field margins and a few rows inside the field early, when the grasshoppers are small. This may eliminate the need to spray a larger area later.
- 6) Lesser cornstalk borer is an iridescent worm that feeds at or below ground and builds a shelter of silk, usually encrusted with soil particles. Scout for lesser cornstalk borer from midseason onward.
- 7) Corn rootworms are almost never at economically treatable levels. If you think that you have to spray anyway, remember that Lorsban 4E is NOT LABELED FOR POST-PLANT USE. Lorsban 4E should not be used to control mid-season corn rootworm larvae. Lorsban 15G can be used in mid-season to prevent damage by rootworm larvae. No other insecticide is labeled and effective in this situation in 2004.

## **Peanut Production Keys and Concerns**

### **Producer Observations, Dawson County**

The following observations represent producer experience and observations as well as custom harvesting for more than 12 years of production. These views are not necessarily based on research or testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

#### **Keys—What Farmers Do Right in West Texas Peanut Production**

- 1) Maintaining a good rotation for peanuts. “I know my rotation isn’t right” but I see growers who do a good job of rotating their crop, especially 1 year of peanuts in four, and they’re maintaining higher yields.
- 2) Willingness on the part of producers to reduce acreage under a pivot so as not to over extend irrigation capacity. If the quality of irrigation water is good, even if capacity has declined, producers are willing to farm as little as ¼ a circle of peanuts—and have good production.

#### **Concerns—Common Mistakes in West Texas Peanut Production**

- 1) Not recognizing the limitations imposed on profitable peanut production by limited irrigation capacity and poor irrigation water quality. Too many producers are still trying to irrigate a full circle of peanuts. I won’t even try peanuts unless I am at a minimum of 5 gallons per minute per acre. If necessary I will reduce acreage to ensure good, profitable production. I have had particular problems with salt or boron on individual circles. I am often looking for salt crystals on the ground or perhaps a slight burning on peanuts of the first pivot span as those leaves are wetter longer during irrigation. In addition, frequent application (say, 0.6” every 3.5 days vs. 0.9” every 5.5 days) of lower quality irrigation water makes the concentration of salts in the surface soil even worse.
- 2) A lot of problems in the misapplication, even overuse, of yellow herbicides. Peanuts are sensitive to mistakes. I think we hurt our production using the wrong method of incorporating yellows (concentrating near the roots). We might be better off even putting yellow on after bedding up. Also, I believe I can see numerous instances where there is overlap of yellow herbicide application, particularly at the end of the field where we turn around.
- 3) Weeds are yield robbers. We must keep fields clean. We just don’t get as many peanuts in the basket as we could because of weed competition. Remember that some herbicides such as Cadre and Pursuit for a ‘layer’ of protection that weeds are not supposed to emerge through. But by disturbing (pitching out, sweeping, etc.) we break that layer of herbicidal protection.

Contributed by Mark Boardman, Dawson Co., March 25, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Producer Observations, Gaines County**

The following observations represent producer experience and observations for more than 12 years of production. These views are not necessarily based on research or testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

### **Keys—What Farmers Do Right in West Texas Peanut Production**

- 1) High quality peanuts.  
We must always think about the big city person that buys a \$0.50 tube of peanuts. They had better be good.
- 2) Efficient harvest.  
There is plenty of harvest equipment available. The newest most productive machines are in use in West Texas. It is amazing that 80% to 90% of the crop is harvested in three weeks.
- 3) Clean weed-free fields.  
Weeds take valuable moisture. There is excellent use of pre- and post-emerge herbicides.
- 4) Good use of irrigation.  
West Texas growers will give peanuts all the water they can. Even in the driest, hottest years there has not been an aflatoxin problem. When water is short and yields are hurt keep on irrigating to make the best of what you have.
- 5) Chemical use.  
Peanuts are a food crop. Chemical label rates and harvest intervals are very important. Chemical residues in the wrong place would be very devastating to the peanut industry.

### **Concerns—Common Mistakes in West Texas Peanut Production**

- 1) Planting peanuts without enough water.  
It is very tempting to plant peanuts on good land with short water. Even if just an inch in July is all you need. Don't count on it. If it rains cut the wells off and let them rest. Chances are that will be more profitable than the extra acres.
- 2) Too much yellow herbicide or improper application.  
A weed problem can be fixed, herbicide damage can't.
- 3) Guessing on nitrogen.  
It is hard to get over the old days of applying 100 to 150 units of anhydrous ammonia. Use soil and petiole tests to apply what the plant needs.

4) Poor timing with fungicide.

It is hard to get revenge on pod rot. Keep up with field history. On problem fields make applications early. A banded application 60 days after planting is cheap and it's good insurance. If you get behind you never get ahead.

5) Scouting fields.

We are all guilty of not spending enough time bent over in peanut fields. 'Out of site, out of mind' is not a good motto for peanuts. It is very important to know what is happening with disease as well as insects.

Contributed by Shelby Elam, Gaines Co., March 22, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Producer Observations, Yoakum & Lea Counties**

The following observations represent producer experience and observations for more than 12 years of production. These views are not necessarily based on research or testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

*“We all get used to growing cotton and growing our peanuts the same way.”*

### **Keys—What Farmers Do Right in West Texas Peanut Production**

- 1) Maintain a sound *Rhizobium* inoculant program for peanuts.

Discovering years ago that peanuts fertilized heavily with N (up to 150 lbs. N per acre) on my soils would still be yellow if a liquid inoculant nozzle plugged, I started questioning how much N I applied. Many years later I have now reduced my overall fertility rate considerably, with no N applications beyond 10-20 lbs./A preplant, and I can still often producer 6,000 lbs./A. I now apply a standard (1X) rate of liquid inoculant in combination with a 0.5X granular inoculant rate.

- 2) (In concert with #1 above) maintaining a strong fertility program for cotton in rotation with peanuts.

When fertilized right for a 2 bale yield the soil will retain strong residual fertility. Hence my peanuts don't need significant fertility, and I pocket that fertility expense in the year peanuts are grown. (All major fertility work conducted early with 10-34-0 or 28-0-0-5).

- 3) Narrowing row spacing for peanuts, especially to 30" rows.

The advantages are many, and it affects how I manage my overall peanut crop. With narrower rows I get canopy closure more easily, even in bad years. Hence cooler soil temperatures, better pegging conditions, less bare soil for weed problems to arise or at least choke out the ones that do arise. Yet with 30" rows I can still sweep the middles early if I have to (and I might have to more if I were on 40" rows). (Rear tractor size at 18.4" isn't a problem, and 20.8" isn't either if one is careful, particularly since my peanut planting mostly results in flatter ground.) I don't believe I have any more trouble keeping my ground from blowing with 30" rows than I did when I had 40" rows.

- 4) Choosing the peanut market type that fits you better, one that you like to grow.

For me, Virginia production just fits me better. They seem to be a little more kind, more forgiving, and I think I get along better with large shells. The large seed is a pain to plant, but I slow my planter down to about 3 mph to reduce skips and let the planter do its job.

- 5) Emphasizing up-front weed control in peanut.

I probably use enough Treflan to kill a few peanuts, but in combination with my narrow row spacing hence better canopy closure, I don't have mid-season weed control needs. I don't need to use 2,4-DB.

## **Concerns—Common Mistakes in West Texas Peanut Production**

- 1) We all get used to growing cotton.  
Then in peanuts we start reducing our seeding rates, we expect that peanuts will fill in the gaps for a thin stand like cotton will, we plant too fast, etc.
- 2) We let the high cost of peanut seed scare us off higher seeding rates.  
Whether we use a high or low peanut seeding rate it costs us the same to dig, harvest, etc. I would rather spend the money and time up front to ensure I have a good stand, few skips, early canopy closure, etc. I don't believe peanuts can make up for a skip as well as cotton (although vines may cover ground, productive pegs are largely still near the crown). Higher seeding rates also afford me the option to take advantage of the collective 'push' of emerging peanuts for better establishment (see #3 below).
- 3) Frequent, light irrigations after planting to establish stand.  
In my sandier soils, I plant a high rate of peanuts, then I water heavily (1-2") after planting. This seals the peanuts in and, yes, I have a crust. But I let the peanuts do their thing: germinate, then push. Small weeds cannot push out like the peanuts can, and they may die for lack of pushing through the crust. Frequent irrigations, say 0.5" per application, could germinate several rounds of smaller weed seed. I won't water again until crack.
- 4) Planting peanuts in loose, fluffy soils.  
Then we get a big rain, and the seed sinks to an unacceptable depth (but does the applied *Rhizobium* in the furrow remain above the seed?)
- 5) Unrealistic peanut crop inputs and expense when clearly the most limiting factor in peanut production is water.  
Without water then numerous inputs like fertilizer can't fulfill their desired potential to produce high yields.

Contributed by Don Parrish, Yoakum Co., March 23, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Producer Observations, Lamb County**

The following observations represent producer experience and observations for more than 8 years of production. These views are not necessarily based on research or testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

### **Keys & Concerns/Right & Wrong in West Texas Peanut Production**

- 1) Peanuts are not to be grown or compared to any general commodity crop we usually grow in this area. I have to fight tendencies to grow them and care for them and evaluate them the same as cotton. For examples: planting depth, emergence, cultivating, irrigation.
- 2) Planting depth. My goal is to plant into soil wet enough and deep enough to get full emergence without irrigation. Irrigation water cools down the soil. This is my goal but it is not always my practice.
- 3) Spanish peanuts need some way to spread out the plant population. Narrow row spacing or double row planting or both are very beneficial to yield.
- 4) Soil fertility and fertilizers are not as imperative with peanuts as they are with cotton and corn. Yield is affected by fertility of course but it doesn't seem to be as 'do-or-die' necessary as with other crops. Top yields still require fertilizer.
- 5) I have applied 2 fungicide applications in 5 years of production.
- 6) A yellow herbicide is essential. Necessary and cost effective.
- 7) Apply as much irrigation as you can one time every week. This is sort of a rule of thumb suggestion but peanuts can use a lot of water for a long time.
- 8) Spanish peanuts can grade in very good premium ranges if allowed to mature. The field loss is less of a concern with Spanish so you can allow them to mature. Certainly lots factors come in to play at harvest time but generally more maturity means better grades and more net return.

Contributed by Bryan Patterson, Lamb Co., March 23, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Key and Concerns** **Producer Observations, Gaines County**

The following observations represent producer experience and observations for more than 15 years of production. These views are not necessarily based on testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

### **Keys—What Farmers Do Right in West Texas Peanut Production**

- 1) Making weed control herbicide applications *on time*. Chemical effectiveness is diminished when applied later (larger weeds, less effectiveness).
- 2) Knowing what weed(s) you are trying to control, how it grows, when it is most susceptible (stage of growth, time of season) to herbicide control, etc.
- 3) Using the right chemical in the right way for your weed pest. Like the weed itself, herbicides also have specific characteristics that make them more effective when used properly. For example, Pursuit and Cadre have not only an optimum time of application for effective weed control, but once they are in place they should be left undisturbed to provide an effective barrier to germinating weed seedlings (don't plow, sweep, etc.).
- 4) Knowing what weed problems you anticipate in your peanuts next year enables a farmer to address a particular weed in the preceding crop, possibly with a herbicide chemistry not available in peanut production.
- 5) Row tillage and planting peanuts into dead wheat or rye stubble. This helps my peanut production tremendously. Peanuts grow off better in the stubble. I try to sweep the dead litter away from the row just a bit; it seems like I have less trouble with diseases. Perhaps more than anything, I stop the blowing sand, potentially protect peanut from hail damage. "I can't stop a pounding rain or hailstorm, but if I have my peanuts planted into stubble then I know I have done everything I can do to keep the field from blowing and protect the plants." {Note: this producer typically plants many of his peanuts in to stubble from a rotational crop rather than simple terminated small grains cover. }

### **Concerns—Common Mistakes in West Texas Peanut Production**

- 1) Too much yellow herbicide use (too high rates) in peanuts or misapplication of the yellow herbicide. Plants can be stunted and/or pegs burned off.
- 2) Heavier seeding rates in runner peanuts are not always the best. If too many plants then some of them in fact become weeds, i.e. they are small and unproductive. I will use seed rates that might drop as low as 3.5-4.0 seeds per foot (often 80-85 lbs/A), but I make sure I know what germination I have on the seed I plant in case I need to adjust the seeding rate up for a seed lot with lower germination.

Contributed by Chuck Rowland, Gaines Co., March 25, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M C Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Producer Observations, Lamb & Terry Counties**

The following observations represent producer experience and observations over 10 years of production. These views are not necessarily based on research or testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

*“My years of production experience remind me that I still don’t know a lot about producing peanuts—some things are still a mystery. I’m often surprised by several things through the year and at harvest, most often yields.”*

### **Keys—What Farmers Do Right in West Texas Peanut Production**

- 1) Farmers are not afraid to experiment with different aspects of peanut production practices. Once producers get past the basics (water and soil) there is a lot of room for creativity while producing peanuts whether it be a variety of tillage practices (including no-till), different harvest techniques, frequency of irrigation, or herbicide programs.
- 2) Producers do a good job of recognizing when a peanut crop needs irrigation. West Texas growers know how to anticipate stress.
- 3) Long-term growers have learned well how to market our peanuts in spite of limited number of buyers. Growers have learned to use forward contracts, harvest sales, and the marketing loan to keep the market competitive.

### **Concerns—Common Mistakes in West Texas Peanut Production**

- 1) Not testing irrigation capacity for peanuts, and not fitting irrigation capacity to peanut acreage. Water quantity is always a concern and often underestimated. My historical production indicates that I need to start with 5.0 gallons per minute per acre well capacity early in the season. Late season irrigation capacity of less than 4.0 gpm/A is suspect for subsequent peanut production. AS water supply declines, so do yields and profits. I have learned that my irrigation is much more valuable later in the season than earlier applications. Excess water in June can stunt root growth.
- 2) Not testing irrigation water quality for dissolved solids/salts and not knowing what is minimally suitable for peanuts. (For a preliminary indication of irrigation water quality standards for peanuts in West Texas consult “Irrigation Water Quality: Critical Salt Levels for Peanuts, Cotton, Corn, and Grain Sorghum, TX Coop. Extension. L-5417, <http://lubbock.tamu.edu/peanuts> )
- 3) Not having a good understanding of soil type, pH, etc. for suitability for peanut production. An example is soils that are too tight (clayey) for Valencia production (where shell color and cleanliness is important). Also, farming peanuts on heavily caliche ground commonly leads to reduced production.

- 4) Not having a firm grasp of the different market types of peanuts, how they compare in production, input costs, length of growing season, etc. and how each individual peanut market type may or may not fit a particular field.
- 5) Long-term growers need to learn from the experience of other regions, especially the benefits of good rotation practices.

Contributed by Doug Sims, Lamb Co., formerly Terry Co., March 22, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Contractor/Sheller Observations, West Texas**

The following observations represent over 30 years of contractor/sheller experience.

### **Keys—What Farmers Do Right in West Texas Peanut Production**

- 1) We believe the few farmers that use sandwich diggers are doing the right thing.  
Many growers don't set their peanuts up very well for drying and ease of combine harvest. Keep in mind that if you manage your digging poorly so as to lose peanuts at the combine pickup you are probably losing your most valuable peanuts (older, more mature, better grading).
- 2) An excellent job of threshing can't be over emphasized.  
We commend those growers that take pains to ensure that their peanuts are threshed as close to 10% moisture as they can. They work extra to ensure that the combine is set optimally for the conditions of the peanut in the row. Peanuts that are threshed below 8-9% have increased LSKs.
- 3) Using a screener for sand, rocks, foreign matter after threshing.  
A higher grading peanut in spite of slightly reduced yield is economical and allows us to more easily deliver a high quality peanut to the processor.

### **Concerns—Common Mistakes in West Texas Peanut Production**

- 1) Producers dig many peanuts too quick.  
Of course this decision may be dictated by other factors such as number of acres to dig, calendar date, weather prospects, etc., but we believe grower can economically increase their grade if they can wait another 7 days. (Obviously, if plant health and integrity is declining then delayed digging incurs increasing yield loss.)
- 2) Inadequate weed control.  
Weeds cost the producer yield, and they indirectly cost the producer as well if weed seed ends up at the sheller (e.g., berries of silverleaf nightshade, or whiteweed; nutsedge). We have problems with prairie sunflower in Hockley, Yoakum, and Cochran Counties.
- 3) Irrigating too much.  
Yes, we have a few farmers that actually irrigate too much. This wastes irrigation water and potentially causes problems in plant health and seed quality.

Contributed by Richard Trimble, Clint Williams Cos./Texoma Peanut, Levelland, 806-894-3001, March 23, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Producer/Contractor/Sheller Observations, West Texas**

The following observations represent over 20 years of farmer as well as contractor/sheller experience.

### **Keys & Concerns/Right & Wrong in West Texas Peanut Production**

#### 1) Digging.

How we dig our peanuts begins at planting. We don't care so much about the size of the bed we plant the peanuts on so much as we care about the size of the furrow. Dropping peanuts down in a slight depression—or worse—causes problems with not only drying but threshing. We equip our diggers and encourage others to consider the same with bars or sweeps to fill the furrow with dirt under the digger before the plants fall back on the ground. We might even actually have the inverted plants on a slight ridge which enhances their drying.

An added benefit of this approach to digging is that we don't have to run the combine's pickup fingers in the dirt as much hence we have less foreign matter in the basket.

Also, we believe a key to successful digging is lacing the two inverted rows of vines together to reduce pod losses at the pickup better. The ribboning effect of peanuts (especially for runner and Virginia; less likely with spanish and Valencia) going into the combine is a benefit, particularly on dry peanuts or for your most mature peanuts within the row. Peanuts with less vine face greater potential losses at the pickup. Field dried peanuts face more of this kind of loss.

Sandwich digging. We see this as an important key to retaining quality in West Texas Peanut. It is all about quality, flavor—ultimately the ability to successfully and readily market West Texas peanuts. Sandwich digging, should it become more widely adapted is probably not for everyone, but producers are encouraged to learn more about the potential of this machine to help us handle unfavorable conditions in the field at digging and harvest time as well preserve, even expand, our markets.

#### 2) Manage according to projected weather and temperature at planting and digging.

First, plant your peanuts into a warming trend. If a cold front is coming or temperatures will be low, then wait until the cool temperatures pass before planting.

Second, dig into a cooling trend (unless temperatures capable of producing freeze injury are predicted) such that peanuts will not dry too fast after digging. For example, if temperatures are predicted to be above 85 F in the first two days after digging, then delay digging.

#### 3) Nitrogen fertilizer management.

Excess nitrogen preplant can enhance weeds. Minimize initial N to less than 30 lbs. N/A. Subsequently, we like to see mid-season N applications, possibly in a split application if applying rates toward 100 lbs./A, applied by initial bloom or shortly afterward. This enhances earlier plant growth, provides better soil cover, hence cooler soil temperatures. Also, we fear that later N in the season, especially if some stays in the

pod zone, triggers greater pod rot. We don't like to topdress N onto plants unless they are small.

4) Peanuts on caliche soils.

Apart from the potential reduction in profitability due to high pH and poorer soil, if the soil has any rock fragments that end up in the basket at threshing, small rocks blend too well with the peanut and are very hard to separate. It causes shellers a lot of problems.

5) Our research 'Wish List.'

How can you 'Pix' a peanut plant? That is, is there anything that could be sprayed on peanuts that would preclude peg development from late flowers say after mid-August? This would reduce the potential for grossly immature peanuts as well as improved grade by minimizing partially filled pods in the crop, peanuts we ideally hope would be blown out the combine, but do in fact end up in the basket. Eliminating these types of late peg and pod development would be akin to eliminating their parasitic effect on the plant (the nutrients and water for their growth). We imagine that yields could be preserved, but with higher quality.

Contributed by Rusty Andrews, Golden Peanut Co., Wellman, 806-759-6456, March 23, 2004  
Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Consultant Observations, Texas South Plains**

The following observations represent producer experience and observations for more than 35 years of production in Texas, Oklahoma, and Georgia. These views are not necessarily based on research or testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

### **Keys & Concerns/Right & Wrong in West Texas Peanut Production**

- 1) Yellow herbicide injury resulting from improper incorporation. This practice also leads to improper nodulation and N fixation.
- 2) Poor weed control resulting from post emergence sprays applied too late.
- 3) Planting too shallow leading to poor stands and improper inoculation.
- 4) Nutrient deficiency (NPK and micronutrients) late in season leading to plant decline and immature fruit.
- 5) Digging too early leading to immature peanuts and off-flavors.
- 6) Failure to utilize improved harvest technology (sandwich digger) leading to increased harvest loss, higher LSKs, and splits as well as off-flavors.
- 7) Planting more peanuts under a circle than water available (120 acres requires 600 GPM of water for profitable yield).
- 8) Applying first soil fungicide too late for effective pod rot control.
- 9) Applying too high a rate of N too early leading to poor nodulation or ineffective N fixation. Apply no more than 30 units of N preplant and delay supplemental N application until nodulation process is well underway.

Contributed by Dr. Ron Henning, Texas/Oklahoma., March 22, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

## **Peanut Production Keys and Concerns Consultant Observations, Texas South Plains**

The following observations represent research, industry, and consultant experience and observations for more than 10 years of production. These views are not necessarily based on research or testing but reflect individual producer experience of interest to other growers in helping them evaluate particular aspects of their own peanut production.

### **Keys—What Farmers Do Right in West Texas Peanut Production (Problems Corrected)**

- 1) Better herbicide incorporation
- 2) Use of Cadre/Pursuit
- 3) Seeding rate
- 4) Irrigation methods
- 5) Harvesting methods
- 6) Harvesting equipment
- 7) Use of inoculant

### **Concerns—Common Mistakes in West Texas Peanut Production**

- 1) Over fertilization of N, P, K
- 2) No calcium program
- 3) Unnecessary use of fungicides
- 4) Improper planting depth of seed
- 5) Improper incorporation of herbicide
- 6) Planting in cold soils/planting too early
- 7) Over irrigating early
- 8) Lack of marketing
- 9) Rotation
- 10) Variety selection

Contributed by Dr. Justin Tuggle, CropDocs, Brownfield, March 23, 2004

Edited by Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806-746-6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)