

FOCUS on South Plains Agriculture

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Research and Extension Center at Lubbock*



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<http://lubbock.tamu.edu/focus>

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Soil Fertility

“FREE” NITROGEN FOR SOUTH PLAINS CROP PRODUCTION— SOIL PROFILE N

Across the Texas High Plains crop consultants, producers, AgriLife staff, etc. are becoming increasingly aware of the potential for accumulating nitrate-nitrogen ($\text{NO}_3\text{-N}$) in the soil. This nitrogen has value for your crops. “Profile N” is nitrogen accumulating below standard soil sampling depths, most often 6”. This accumulation is due to over fertilization (or underutilization in years when production is sub-par) with N, and the majority of the time producers are not aware of the presence of this N in the soil. Historically this N is not accounted for in supplying crop nutrient requirements, but it should be.

Former Texas AgriLife Research soil chemist Dr. Kevin Bronson, based at Lubbock 1998-2010, believed that documenting the soil profile N presence in the South Plains with colleagues Randy Boman, Brent Bean, Mark Kelley, Tommy Doederlein, and others was his biggest contribution to the region, more so than the highly technical work his group conducted.

The level of N accumulation can vary greatly due to fertilization practices, downward percolating moisture from rains which carries the soluble and mobile nitrate, soil type, etc. Sometimes substantial N is found even below 3’ in the soil, but only deep rooted crops can tap that N. Texas A&M AgriLife’s Soil, Water, and Forage Testing Lab offers a “Profile Soil Sample Information Form” (SP12) that pairs your standard 0-6” soil sample (analyzed for multiple nutrients including N, P, etc.; routine analysis, \$10) with a second soil sample from 6” to as deep as 24”. This paired soil sample is analyzed for nitrate-N only, \$4. The submitter marks the depth to a proper calculation of nutrient requirements can be made by the soil test lab.

Private labs can conduct the same testing but may not have a specific submittal form for this test.

Is profile nitrate-nitrogen down to 24” deep 100% crop available?

Yes. Even slightly deeper N (that from 24-36”) is largely available to most crops. Deep rooted crops like sunflower are known to take available N from 4-6’ deep, although deep rooting is often due to drought conditions rather than exploring for N. The Texas A&M AgriLife Profile Soil Sample form for N credits all nitrate N at 6-24” to your crop requirement thus reducing fertilizer costs. Extension recommends that producers include at least some profile soil N sampling to establish whether there might be deeper N present.

As you plan soil sampling for winter and spring consider whether you should evaluate your fields for soil N below 6” depth. The current Profile Soil Sample form is found at <http://soiltesting.tamu.edu/files/profilesoil.pdf>

Grain Sorghum & Corn Seed

Supplies for 2013

Numerous seed dealers and seed suppliers are recommending that growers book their sorghum and corn seed as soon as possible once they have an indication of planting plans for next year. One grain sorghum seed company noted that their hybrid seed production in 2012 was average, but they have no carryover due to the drought in 2011.

Late-Planted Wheat

As wheat planting continues, particularly south of Lubbock as cotton harvest is completed, growers are encouraged to not delay wheat seeding on irrigated wheat. Although the single digits of November are still reasonable as a planting date, seeding later does diminish grain yield potential especially as Thanksgiving and December come.

Variety Selection

Popular wheat varieties like TAM 111 and TAM 112 have long been sold out. If you are still planting wheat for grain, variety selection will be sparse. Very few if any 'Pick' variety wheat seed is left in the region. If you are faced with a decision on varieties for remaining acreage, consult the multi-year trial results for the Texas High Plains at located on the main page at <http://lubbock.tamu.edu> If you need information on disease resistance, etc. contact Calvin Trostle.

If you encounter short wheat seed supplies, keep these guidelines in mind:

- Do not plant beardless wheat for grain (it yields less than average grain varieties)
- If you have some choice wheat varieties on hand like the Extension "Picks" (see link above), but not enough to plant all your acres consider reducing your seeding rate up to 20% to cover more of your acres with a good variety.
- Do not plant "VNS" or Variety Not Stated wheat for grain as varietal designation is just too important to plant something you don't know what it is. (Also, if you purchase VNS wheat for ground cover, I recommend you get in writing from the seller a statement saying

that the wheat does not contain any seed or variety that is protected by the Plant Variety Protection Act.)

Late-Season Wheat Seeding Rates

Wheat seed typically averages about 14,000-15,500 seeds per pound. Extension recommendations for wheat seeding in the South Plains for irrigated are 60 lbs./A if planted by about November 1, but these seeding rates increase to about 90 lbs./A if planting into early December to account for reduced tillering and to retain as much of the diminishing yield potential as you can. CT

Upcoming Extension & Affiliated Educational Programs

Dec. 7, Lubbock—High Plains Ag. Conference, contact Robert Scott, Lubbock Co. ag. Extension agent, (806) 775-1680. 9 AM-12 PM, Texas A&M AgriLife Research & Extension Center, 1102 East FM 1294.

Dec. 11, Levelland—West Plains Ag. Conference, contact Kerry Siders, Hockley-Cochran Co. IPM Extension agent, (806) 894-3150, 8:30 AM-2:30 PM, Sundown Room, South Plains College student center.

Dec. 12, Tulia—Swisher Co. Ag. Conference, contact David Graf, Swisher Co. ag. Extension agent, (806) 995-3726.

Grain Sorghum—Extension-affiliated production meetings, hosted by United Sorghum Checkoff Program and Texas Grain Sorghum Association

Brownfield--Monday, November 19, 2012 (lunch)
12:00 PM, Coleman Park Party House, 701 Park Blvd.

Levelland—Tuesday, November 20, 2012 (breakfast)
7:30 AM, Mallet Event Center, 2320 South State/Highway U.S. 385

Muleshoe—Tuesday, November 20, 2012 (lunch provided)
12:30 PM, Bailey Co. Electric Coop, 610 East American Blvd.

Lamesa—Tuesday, December 18, 2012 (breakfast provided)
Details not set, likely 7:30 AM (contact Calvin Trostle)

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[Water Management Website](#), [TAMU](#), [Irrigation at Lubbock](#), [IPM How-To Videos](#), [Lubbock Center Homepage](#), [Texas AgriLife Research Home](#), [Texas AgriLife Extension Home](#), [Plains Cotton Growers](#)

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