Elstel Farm & Seeds

" The Crabgrass Seed Folks"

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Fact Sheet 1998: 'Quick-N-Big®' & 'Red River' Crabgrass & Winter Pasture Double-Cropping

Introduction: 'Quick-N-Big®' Crabgrass (QNBCG) and 'Red River' Crabgrass (RRCG) are selections of particular very productive ecotypes of "Big"Crabgrass and "Hairy" Crabgrass. Both varieties have been successful as the summer grass component of the Winter Pasture Double-Crop (WPDC) syndrome , the subject of this Fact Sheet.

Here are some major reasons to use 'Quick-N-Big®' and 'Red River' Crabgrass in forage production schemes:

- They are among the highest quality and highest palatability of the summer grasses.
- They ares relatively easy to manipulate in **a planted or planned volunteer Variety Crabgrass and winter annual grass doublecrop pasture or winter grain crop.**
- These Crabgrasses are an excellent component in many warm season forage mixtures.
- These Crabgrasses are excellent soil conservation grasses, alone, or in mixtures.
- They can be a relatively "low maintenance" turf grass. Red River Crabgrass may be better for this.
- These grasses are excellent forages for use in animal waste (manure/effluent) management systems.

All of the above being true within the acceptable growing regions and with adequate cultural practices.

It is the intent of this management information to summarize the enterprise of Double-Cropping Winter Annual Grasses (WAG) and these varieties of Crabgrass. The double-crop approach more completely utilizes the resources of solar energy, moisture, soil fertility, labor, time, and spaces. The winter crops may be for pasture, hay/silage, or grain , or a combination thereof.

Variations in Quick-N-Big® and Red River Crabgrass and Winter Pasture Double-Crop: Without a doubt, one of the most common uses of these Crabgrasses (CG) is in a WPDC syndrome. Research shows that this **double-crop yields about 60% more than either crop as a single crop**. There are many variations of this approach. The CG is most often used for grazing, but it also makes excellent quality hay, chopped forage, and silage. The WAG component is most often grazed and, in the case of wheat and other grain crops, taken for grain, hay, silage, chopped forage, or straw. The CG-WPDC can provide **three basic seasons of green forage**: Fall-Winter Phase, Spring Phase and Summer Phase. The components can be further integrated by adding legumes such as annual lespedeza or southern cowpea for summer and hairy vetch, red clover, crimson clover, etc. for winter. The legume list is much more involved and depends on the area. The grazier has much flexibility to choose the combination that best fits in their own forage flow.

The Adaptation Region of the CG varieties extends from N. E. Colorado and Southern North Dakota, east to Kansas, Nebraska, Missouri, Ohio, Iowa, Illinois, Indiana, Pennsylvania and south to Texas and across Florida. Some form of CG-WPDC fits in that entire region on proper soil types , moisture, and with proper management inputs. However, the major use area is Nebraska and states south and east to the coasts. The approach is most reliable in the precipitation zones of 26 to 30 inches, or more , annual precipitation . CG-WPDC can be used in the arid west under irrigation. In the Southern Plains and throughout the S. E. US, the CG-WPDC may be very fully employed yearlong. In the mid to northern areas, fall phase winter pasture is avoided due to lower fall production and soft soils in winter, but spring grazing or other small grains forage use and crabgrass forage use can proceed as usual. Stockpiled crabgrass can also be carried through fall and into winter use in most areas if that fits the forage need of the grazier. The CG-WPDC approach fits best on sandy, loam, silt loam soils and least on pure silt, clay and clay loam soils.

Cultural Management involves tillage, no tillage or a combination of tillage and no-tillage, planting or volunteer management, soil fertilization, etc. Outlined below are a few of the more common approaches to management of the CG-WPDC production with either Quick-N-Big® or Red River Crabgrass.

We are assuming below that volunteer crabgrass is already in place and that **rotational grazing** of all forage is the usual. Where small grains (wheat, cereal rye, etc.) are used, the usual practice is to minimum till or conventional till for small grains planting, plant by drilling (or broadcasting), fertilize pre-plant or immediately post plant for fall phase forage and fertilize in late winter for spring phase forage . If CG is not emerged at the end of small grains use (a usual for cereal rye pasture), minimal spring tillage is an easy option and it will increase CG production over spring no-tillage. CG is either fertilized pre-emergence or after proper initial growth is there. This basic approach is usual for the S. Plains, the mid-west and some of the S. E. US. There are many variations. **Tillage for volunteer CG should be shallow but thorough on the surface**. Seed set and drop for volunteer Quick-N-Big® or Red River Crabgrass must be managed for during the grazings or mechanical harvests of summer.

Where annual ryegrass, winter legumes, or late utilization of small grains is the case; the usual practice is very similar to above with two major exceptions. One is that annual ryegrass is sometimes managed for volunteer, too. This alters the tillage and fall planting techniques. The other is that the lateness of use of these crops in the spring conflicts with spring minimum tillage for volunteer crabgrass production. Crabgrass is up by the end of winter forage use in this case. **If no-tillage is the choice in spring, then fall tillage is more important and should be done if that is an option**. Some rye grass producers in the more humid S. E. US are aware of the positive tillage response for crabgrass and they will do a minimum tillage at late winter forage end, thus destroy an early CG stand and go for a second stand.

There is a choice of total no-tillage for annual ryegrass or small grains (with or without legumes) and CG. Chemicals or intensive grazing may be substituted for tillage. The total no-tillage works, but **both crops produce later and less yield than under tillage** but they are still there to a degree. In units including bermudagrass or fescue, they will take over under no-tillage. Other grasses invade everywhere. **Tillage suppresses plant succession to maintain more pure Quick-N-Big® or Red River Crabgrass.**

Production of stocker cattle beef/acre in the well run CG-WPDC is usually 500 to 900 pounds beef/acre in the South Plains and over 1000 and up to 2000 pounds/acre in the S. E. US. with top level management These are real yields. This range depends on area, soil, management, cattle size, nitrogen inputs, etc.

Fertility Management is very important. On phosphorus deficient soils, banded nitrogen-phosphorus fertilizer with the winter crop seed is **very important for early winter crop production and total production**. We apply all the years' phosphorus and potassium needs during the winter crop phase. Lime can be applied anytime, but it is best applied before a tillage operation. Nitrogen (N) should be applied at usually recommended rates early in the growing season for each phase, but NOT during the 1 leaf to 4 leaf RRCG seedling stage. **To do so may thin or kill that seedling stand**. Total N for each of the 3 phases may range 50 to 100 lbs./ac. The range depends on climatic area and production goals. (2-3-11).