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Fact Sheet 2009 : 'Quick-N-Big®' Crabgrass And 'Red River' Crabgrass , Miscellaneous Management Items

A Summary of these two crabgrass varieties is appropriate. Seed of these two properly named improved varieties of Crabgrass is commonly available at Dalrymple Farms. These varieties are: The original first known variety in the world, 'Red River' Crabgrass, (RRCG) and the newest variety, 'Quick-N-Big®' Crabgrass. (QNBCG). Red River Crabgrass was released from work at Noble Foundation, Ardmore, OK as a Certified Seed variety in 1988. It was first grown on private landowner property for forage in 1990. 'Quick-N-Big®' Crabgrass was released by us in 2006 from the continued work started by us at Noble Foundation. 2006 was the first year it was grown on private land other than our own. It was approved as a Certified Seed Variety by the Oklahoma Crop Improvement Association in 2007. All of our Certified Seed is grown under the guidelines and inspections of the Oklahoma Crop Improvement Association.

Red River Crabgrass is a very productive ecotype of crabgrass from collections of "natural" crabgrass collections in Oklahoma , Missouri , New Mexico , Delaware , and New Zealand. In Agronomy professions, a big crabgrass it is often referred to as "Hairy Crabgrass" because of the "hair" on the stems and leaves, but many other crabgrasses are "hairy", too. RRCG is from one of the many common or "natural" species of crabgrass. Oklahoma alone has 6 different "natural" crabgrass species . Most taxonomists believe that all crabgrass was initially introduced into the USA by early day emigrants , either accidentally in their seeds and feeds , or on purpose some way.

credit the U.S. government (U.S. Patent Office, before the USDA) for Some professors purposefully introducing "crabgrass" for draft, and food and fiber animal forage, in 1849. We have not been able to ascertain that by original written documentation. RRCG is a fine to medium stem and leaf size type. It was the highest producer of all the many selections studied in the research being done at that time. It can grow to 2 to 3 feet tall or more, free standing, at advanced hay stages under good conditions for such tall growth. If it grows too tall, it is prone to lean over, weep, or lodge and lay close or on the ground. But, RRCG is usually grazed and haved at earlier stages of growth in order to get good regrowth. It covers the soil surface very well with tillers and stolons (runners that can produce upright stems) that root from the nodes (joints) that lay on the soil surface in thinner stands that allow that to happen. The stolons sprout at the joints when it rains to cause high humidity and wet soil contact at that point. RRCG was selected from a collection of many crabgrass ecotypes "native" to Oklahoma and other states. In addition to being the most productive in that work, it was also among the longest growing season types of those selections, and it had excellent forage quality characteristics. In Southern Oklahoma, under good management and growing conditions, it has been know to be ready to graze as early as the second week of May.

Quick-N-Big® Crabgrass (QNBCG) is an equal to , or more productive crabgrass , than RRCG under good management. In research work it averaged 11 % higher yielding than RRCG , with one year 25% better yield. It is a medium to large stem and a **very large leaf** type crabgrass during the spring to summer time period (some leaves measuring 5/8 to 3/4 inch wide), compared to RRCG. Even though the stem is a bit larger , it is still a relatively soft and pliable stem , thus helping maintain high palatability during grazing or feeding hay. Under comparable cases, QNBCG germinates **quicker and under a little cooler temperatures.** It has **more rapid seeding growth** especially after about 2 weeks of age , and when tillers form. It **reaches grazing and haying stages** much earlier than RRCG , Thus it can be have a longer season that RRCG. On average in comparable cases , QNBCG can be about 2 to 3 weeks earlier to reach proper grazing stage or haying stage than RRCG. QNBCG can be a much taller forage plant at similar ages being the tallest , free standing crabgrass we at Dalrymple Farms have ever seen.

QNBCG has been measured to average up to about 43 inches tall, during good growing conditions, at advanced hay field stages in a field, with some areas free standing at 58 inches tall. That is the very tallest free standing crabgrass we have ever seen in 40 years of using crabgrass as a real forage (as this is updated in 2014). This shows some of it's genetic capability. But, these tall heights are not necessarily the height to manage for. QNBCG is also a bit more of an open, aggressive tillering type than RRCG. QNBCG can make stolons, or runners, but not to the extent that RRCG does. The most profound thing a grazier will usually notice about QNBCG is the much more rapid early growth, bigger leaves, and quickness to get to first proper grazing stage. Some graziers report that re-growth is sometime slow. This almost always correlates to grazing the taller crabgrass a too short, or haying too late, and that in turn, injures the plant more and slows recovery. It should always be grazed or hayed soon enough to allow leaving a green leaf at the lower part of stem where it is grazed off or cut. That helps in getting better re-growth.

QUICK-N-BIG® CRABGRASS IS A TRADEMARK® PROPRIETORY VARIETY OF DALRYMPLE FARMS, dba "ELSTEL FARM AND SEEDS". SEED IS AVAILABLE ONLY FROM DALRYMPLE FARMS, AND COOPERATING SEED DEALERS WHO RETAIL IT.

<u>During 2008</u> Dalrymple Farms people did an "on farm research project" with QNBCG to more precisely measure it's tillering and stem sprouting capability. It can have a more open canopy than RRCG. The research was to determine how many tillers (stems) and auxillary stems (sprouting of a new stem at the joints of the parent stem above ground line) it would make if a given plant had the space and the chance. A six foot diameter area was kept clean around a single QNBCG plant in one of our production fields and it was let grow at will. The field was dryland. The first half of summer had fair to good moisture and the last half was dry for most of the period. The crop was fertilized with 60-26-0 lbs/ac N-P-K fertilizer in April. We did not fertilize again for a fall crop. So, the plant was somewhat nutrient deficient and dry during mid-summer to fall re-growth. The first cutting was on July 14. That harvest produced **99 main tillers** (stems) from this one plant (one seed), plus **3 auxillary stems** (sprouts at the joints) per main stem for a total of **396 stems---from one plant and the one seed that made that plant**. The nutrient deficient September 5 harvest added **88 main stems as re-growth**, plus uncounted auxillary stems (we forgot to count them), for a summer total of **484 stems from one plant in this case**. Each stem is livestock feed. Bottom line is, that is a lot of production from one seed and one plant and is an example of it's genetic production capability.

Both varieties are good choices. **Some producers mix the two** in an effort to capture some of the benefits of both . We have done some of that and find the mix makes good full summer forage with Quick-N-Big® Crabgrass providing about 2 weeks or more earlier forage in the mix than RRCG alone.

Some comments about "common" or "native" crabgrasses: These grasses are "Variety Not Stated", or VNS on the seed test tag. They are natural growing crabgrass's of many species, and innumerable plant types per species. They are whatever "Mother Nature" produces that got tall enough to mechanically harvest. For example, there are six species of naturalized crabgrass in Oklahoma alone, and enormous plant type variation within each species. Some may be a somewhat useful forage type, but in general, they are inferior for forage relative to either of the developed, known potential, varieties. They tend to be less productive, and often have shorter growing seasons in spring, fall, or both, and some are more prone to have diseases. Beware!

<u>Some Management Reminders Are Important</u>: For upper level performance, these crabgrass variety forages need: **soil surface renovation** sometime annually during the off-season, **acceptable fertilization**, **weed control** (sometimes), **proper grazing rotations**, **proper timing and height of hay harvests and grazings**. They are useful in numerous **single crop**, **double crop**, and **forage mixture** situations. For those producers that can produce pasture legumes well, it is also a choice to grow RRCG and QNBCG with a legume in mixture, or during the prior winter season. This may help reduce some of the fertilizer needed.

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