

Elstel Farm & Seeds

“ The Crabgrass Seed Folks ”

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FACT SHEET 1999 : Managing ‘Quick-N-Big®’ and ‘Red River’ Crabgrass For Volunteer Stands

All crabgrass is an annual, including ‘Quick-N-Big®’ (QNB) and ‘Red River’(RR) crabgrass (CG) varieties. Crabgrass never lives through winter to re-grow by the roots. Stands must be regenerated from seed each spring to-summer season. That seed may be planted each season , or **supplied via planned-management for volunteer**. One of the desirable traits of crabgrass is that it can be managed for volunteer to limit repeated planting expenses, time, and labor. By managing for volunteer, **the plant mimics a perennial forage**. This management information outlines the basic methods to accomplish that for the Quick-N-Big® and Red River Crabgrass varieties. The basic procedures are the same for both varieties.

Crabgrass is basically indeterminate in growth. It makes vegetative growth, seed heads, and ripe seed simultaneously all summer , and not all at once like a wheat grain crop, for example. Any stem can produce a seed head and threshable seed if allowed to grow long enough. **Each stem is**, in general , **a different age** and that, in part, allows much opportunity to manage for seed maturity and seed drop for volunteer during mid to late summer. In Central Oklahoma this may occur as early as mid-to late June for Quick-N-Big® Crabgrass and July for Red River Crabgrass and continue to the cooling days of October during a good, long growing season. **This allows for multiple opportunities to manage for seed-drop during grazing and haying to create the seed bank for volunteer stand management**.

Proper tillage (renovation) causes a positive response for **pure stand Crabgrass managed for volunteer stands**. Proper **shallow tillage**, done with discs and other equipment, increases earliness of stands and early forage volume, increases vigor of summer growth, adds more total forage production , and increases year to year stand longevity. Seed drop and tillage, properly throughout and done , are a great benefit in managing for excellent volunteer stands. Crabgrass can also be a base for numerous no-till forage situations , but that is a different story. For these crabgrasses to be successful at **upper level**, they **must be renovated** at least once a year during fall to spring. One tractor trip is all that it takes, but more is OK. Heavy winter livestock treading (pugging) is also helpful. Excellent moisture in spring and summer in no-till cases helps.

Crabgrass is usually grown for pasture, hay, and soil conservation cover in some manner. It may be a single crop or double cropped with winter pasture, used in numerous mixtures, etc. **These cases usually allow a time in fall and/or spring to till for volunteer QNB and RR Crabgrass management**. In all forage cases there is almost always a time to do the renovation . Almost all forage situations come down to using the forage crop as: 1) Grazing, or 2) Hay. Management guidelines for creating a seed drop for a seed-bank on and in the soil will be outlined from these perspectives as follows.

In Central Oklahoma , early-developed Quick-N-Big® Crabgrass pasture starts coming to seed heads as early as mid-late June, and later. Quick-N-Big Crabgrass of the same age as Red River Crabgrass comes to head about two to three weeks before Red River , more or less. In a grazing case, seed heads continue to form all summer to fall. **Remember, any single stem that develops can make a seedhead, and that seed head can shatter ripe seed if left long enough**. These grasses are unique in that they are still of relatively high quality when some of the heads come to enough maturity. The whole of the pasture is still green when some seeds are ripe and shatterable.

A rotational style of grazing is recommended as the recovery period can be managed to allow adequate seed heads and seed drop for the volunteer management.

With continuous grazing at a stocking rate to allow a little surplus forage by mid-term, the crabgrass will set seed heads and drop ripe seed around manure pats and urine spots, and in the “humps” of forage not grazed short, and sometimes even closer to the ground otherwise. **Be certain to check across the pasture** to be sure there is adequate seed heads and seed drop everywhere. A good guide is to have some shatterable seed about every man-step of the way. Just grab some in the hand and hand thresh it to determine if it is ready and enough.

With rotational grazing, the grazer can control recovery periods to allow some mature seed to develop across each paddock during some time of summer. It is preferred to start this on some paddocks as early as seed heads began to form. Then as grazing rotations proceed, continue the process on additional paddocks until the seed drop has occurred on all paddocks.

Residue (stubble) height at end of each grazing period should be 3 to 6 inches. Recovery periods of about 4 to 6 weeks are usually sufficient for seed head and seed development during good growing conditions **when the stubble is not uniform** throughout. At the end of summer, the forage can be taken as short as possible as there is no need to “save the root” system.

In both grazing style cases above, if seed will readily thresh out in your hand about every step along the way, that is enough seed to perpetuate volunteer stands. Tear off some heads in the hand and thresh them as if rolling marbles in the hand. If there is about ¼ teaspoonful of seed, or more, to each such spacing, that is indication that the seed drop is, or will be, good enough for the volunteer stand management. A little more seed is OK. But, a full crop of seed drop is too much and can create too thick a volunteer stand and necessitate thinning of the volunteer stand. These threshed seeds may be greenish, grey-greenish, to tan or brown in color. If seed mature very well, cattle consume them (and they will) then much seed passes viable in the manure and that contributes to distribution and volunteer stands. It is unusual to graze these grasses too short so that they will not drop any seed, but it can be done.

Managing for volunteer stands in haying situations is a bit different. It is possible to cut the first hay crop early for very lush high quality hay with few or no heads. If this is done, be sure to manage for seed drop in the next re-growths. These grasses can be very high quality if cut at first growth and “early” when they are very high quality, about knee high, and well managed, and with few or no seed heads. This can usually be done with first growth, but second and later growths come to head very soon as the stems elongate to harvest height.

Second and future re-growths come to seed heads relatively quickly. Short stems in the boot stage (stems with heads inside the stem) can come to seed heads in two to three weeks. The choice then is to harvest higher quality hay with fewer seed heads, or wait and delay harvest to allow enough mature seed to shatter during the process of harvesting.

If seed will readily thresh in your hand every step of the way, that is usually enough seed to perpetuate volunteer stands the next season. See prior paragraph in grazing comments about that technique. As the hay is mowed, raked, and baled, the **seed will be shattered with every operation** to make the seed-bank for future volunteer stands. It is incredibly easy to do.

Another excellent technique is to leave seed-strips every 1 to 2 swaths. These strips mature much seed before the next cutting or grazing. When the next harvest is made, leave the strips in a different pattern. Combining this idea with the above is good. **These strips need to be only 6 to 12 inches wide.** It looks strange, but it is effective. This seed is scattered by every action of livestock, equipment operation, and weather. These strips left in one harvest can be harvested with the next use, and strips left in following harvest, set in a different direction.

Some additional comments as follows may be helpful. Some people think crabgrass cannot be grazed so short that it cannot make seed to volunteer. Wrong! It has happened, but it is unusual. **With these more productive and tall varieties of Quick-N-Big® and Red River Crabgrass, it may be more possible or likely.**

Research shows **that over 10% of crabgrass seed can remain viable (germinable) after two years buried** in moist soil. That seed can contribute to a volunteer stand, but it must come to near to the surface with shallow tillage to function.

When tillage is done to manage crabgrass, do it shallow to prevent burying all seed to deep. And, never till too late in the spring season **to destroy a new stand.** Each shallow tillage brings some seed to or near to the surface, and at the same time buries other seed for storage and aging and later use in the system. This fits well in a tilled pasture system.

Fifty percent or more of the stand comes from seed on the surface to **no deeper than ½ inch** in top quality sandy soil. It is good to **renovate thoroughly but shallow** at only up to about 3 inches. It is not always needed to renovate deeply.

When Quick-N-Big and Red River crabgrasses are used in a mixture with permanent forages, such as bermudagrass, etc., **then the renovations can be done very shallow** and essentially on the surface of the soil with chain harrows, shallow and light straight running tandem disks, or **any tool to do a surface style renovation.** Replicated research with surface tillage on our farm in Midland bermudagrass shows Red River crabgrass to increase **100% in stand density**, and **increase in crabgrass yield of over 80%** compared to no tillage treatment. That is substantial and well worth the one tractor trip to get it done. These types of tillage use only \$0.50 to \$1.00 acre of fuel per acre in our case. Our old tractor is paid for.

Finally, there are some graziers who **graze only for quality** as a priority, and they do not actively manage for seed drop, but simply plant a little seed each spring to be sure they get good stands each season. (2-6-11)

