



KIKA DE LA GARZA PLANT MATERIALS
CENTER
USDA - NATURAL RESOURCES CONSERVATION SERVICE

MAY 1998

Newsletter published by Kika de la Garza Plant Materials Center Advisory Board Kingsville, TX.
78363

NATIVE RANGE MIXES

False rhodesgrass or two-flowered trichloris (*Chloris crinita*) and multiflowered false rhodesgrass or four-flowered trichloris (*Chloris pluriflora*) are native, warm-season, perennial bunchgrasses that are co-dominant climax species throughout South Texas. We have been evaluating these two species for accession differences and comparative differences to kleingrass and buffelgrass. It appears that neither of the false rhodesgrass species is as consistently productive as kleingrass or buffelgrass. However, buffelgrass is known to inhibit seed germination of legumes (Nuridin and Fulbright, *Journal of Range Management* 43(5), September 1990). Therefore, the Plant Materials Center has initiated a study to evaluate four different seed mixes for establishment of grasses and forbs. The seed mixes are (1) buffelgrass with forbs, (2) kleingrass with forbs, (3) false rhodesgrass and multiflowered false rhodesgrass with forbs, and (4) the false rhodesgrass species and plains bristlegrass with forbs. All four grass mixes include the same forb combination, which consists of lazydaisy (*Aphanostephus ridellii*), orange zexmenia (*Zexmenia hispida*), bush sunflower (*Simsia calva*) and Illinois bundleflower (*Desmanthus illinoensis*).

GRASS HEDGES

Grass hedges are narrow strips (1-3 feet wide) of stiff, erect densely growing grass planted across the slope perpendicular to the dominant slope. These hedges function to slow water runoff, trap sediment and prevent gully development. The Plant Materials Center has established grass hedges in Bee, Bexar, Webb, Austin and Travis Counties. We are evaluating the grass hedges for vegetation establishment, hedge stability and erosion and sediment patterns. We believe they have practical use for concentrated flows in cropland fields, as buffer strips and for nutrient uptake enhancement in an animal waste system. More details on our studies will be available in an updated technical note in 1998.

SEED QUALITY

James Alderson, Temple

Over the last few months, I have had several inquiries regarding seed calculations, storage, longevity and overall seed quality. The following are some points to remember when planning a seeding.

Seeding rates have been determined to be 20 live seeds per square foot in drilled or broadcast plantings. Drilled is defined as rows spaced closer than 20 inches apart. Plant species vary greatly as to numbers of live seed per pound. Likewise, each individual lot of seed within the same species will also differ, though usually only slightly. For these reasons the Natural Resources Conservation Service recommends the use of pure live seed (PLS) determinations to remove this variability. Pure live seed is expressed as a percentage calculated by the formula $(\% \text{ germination} + \% \text{ hard seed}) \times \% \text{ purity} = \% \text{ PLS}$. Since PLS is always less than 100%, remember there will always be more bulk pounds to be applied than the amount of PLS pounds when calibrating the drill or seeder.

If for some reason you did not get to plant all of your purchased seed, you can carry that seed over and use it next year. Storage requirements are fairly simple. Keep it in a dry place and free of rodents and insects. A good barn or storeroom will keep the water out and an insecticide will control the bugs. Rats and mice will be more trouble, so store in a tight, well-constructed structure.

Seeding standards generally allow a long planting season, something on the order of December through May. Due to shortages of native species I can foresee a possible problem for the next 2-3 planting seasons. Seeds of all native species go through a maturing process for 6-9 months after harvest during which time germination rates increase significantly. In ordinary times seed companies carryover supplies from one year to the next allowing the time for that maturation before planting. Since the Conservation Reserve Program ranking systems are heavily biased to native species, supplies are going to be short, or at best barely sufficient to meet the needs for a few years. Many of the species called for in mixes are just this year being put into seed production fields. What is going to happen is each year's entire crop will be sold and delivered within 2-4 months after harvest. Unless the seed is planted in January or February, there is a good chance a lot of it will not come up the year of planting. It will come the next year in most instances but weeds will have already taken over the field. Using this information, PLAN accordingly!

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