

NORTH CAROLINA INTERAGENCY NUTRIENT MANAGEMENT COMMITTEE

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Date: August 17, 2006

Issue Paper: RYE Values for Superior Lines of Seeded Bermudagrass

Background: The INMC was asked by the 1217 Committee to make a determination on use and realistic yield expectations (RYE) for the various seeded Bermudagrass varieties as part of nutrient management/waste utilization planning in North Carolina.

Historically, seeded Bermudagrass varieties have often failed to maintain yield and vegetative character over time, and stands have tended to become dominated by the unproductive common ecotype. Older varieties often contained common and/or Giant Bermudagrass (or originated from Giant) and are not persistent in NC. For that reason, seeded types have previously been assigned to the same yield group and allowed the same plant available nitrogen (PAN) rate as Common Bermudagrass, and were allowed 75% of the PAN that hybrids were allowed on a given soil map unit.

In recent years, however, new pure seed lines and pure seed line blends have been observed to maintain vegetative character and yield for much longer periods. Data from several southern states suggests that certain lines of seeded Bermudagrass have long term yield potential comparable to hybrids. The INMC recommends that pure line varieties and blends of these varieties of seeded-type bermudagrass now be allowed the same RYE and PAN rates as hybrid Bermudagrass varieties.

To ensure that vegetative character and yields are sustainable through the life of a nutrient management/waste utilization plan, only proven varieties should receive hybrid PAN rates. Qualifying varieties and mixtures:

- 1) Varieties and blends of varieties are of known origin.
- 2) Varieties are not selections of Giant or Common Bermudagrass.
- 3) Blends do not contain either Giant or Common Bermudagrass seed.
- 4) Varieties and blends have been tested by universities or other public institutions and observed to maintain yields comparable to hybrids over several years.

Producers intending to sow Bermudagrass for nutrient management/waste application should research and document the background of any seeded variety. Assistance in identifying superior lines can be obtained from Soil & Water Conservation Districts, Cooperative Extension, and NCDA&CS regional agronomists.

The establishment of seeded Bermudagrass varieties containing Common or Giant is discouraged, but those varieties may also be sown and utilized in nutrient management plans using the *existing* yield and PAN rate for Common Bermudagrass (75% of hybrid rate).

Note: All seeded varieties of Bermudagrass, including common, will spread by the distribution of seeds, and through its rhizomes and stolons. These can become a weed pest in agricultural land or landscaped areas adjacent to seeded fields. In addition, seeded Bermudagrass hay containing viable seeds may alter marketing to prospective hay consumers