

INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES  
UNIVERSITY OF FLORIDA

AND THE

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

NOTICE OF RELEASE OF THREE LIMPOGRASSES  
'Redalta' 'Greenalta' 'Bigalta'

The Institute of Food and Agricultural Sciences, University of Florida, and the United States Department of Agriculture, Soil Conservation Service, announce the release and naming of 'Redalta', 'Greenalta', and 'Bigalta' limpograsses, Hemarthria altissima (Poir.) Stapf. and C. E. Hubb.

These cultivars are the direct vegetative increase and release, respectively, of three plant introductions (P. I. 299993 Redalta, P. I. 299994 Greenalta, and P. I. 299995 Bigalta) obtained by Dr. A. J. Oakes, Research Agronomist, Germ Plasm Resource Laboratory, Agricultural Research Service, Beltsville, Maryland. These were collected in Transvaal, South Africa and received in Florida in June 1964.

Redalta and Greenalta are anemophilous, chromosomic diploids ( $2n=18$ ), while Bigalta is a tetraploid ( $2n=36$ ). The inflorescence is a single, spike-like raceme; often two or more racemes may emerge from a node. These are stoloniferous perennial tropical grasses of the tribe Andropogoneae of the family Gramineae. They spread by decumbent stolons and new culms establish by rooting from the nodes in wet soils. Redalta and Greenalta have fine abundant stems and moderately fine abundant leaves. Bigalta leaves and stems are abundant, but somewhat more coarse than in either of the two diploid varieties. Redalta and Greenalta will stand upright to 110-125 cm tall on fertile soils. Total stem growth per year is approximately 2.7 to 3.3 meters. Bigalta will stand 120-135 cm tall with an

annual stem growth of 3 to 3.6 meters. Limpograss is more frost tolerant than digitgrass, bermudagrass or bahiagrass.

Redalta has a characteristic red color at advanced stages of growth or under environmental stress conditions. It has considerable cold tolerance for a grass of tropical origin and has perennialized as far north as Experiment, Georgia and Knox City, Texas. Its advantages over other cultivars are cold hardiness and adaptability to a broad range of poorly to moderately well drained soils. The grass sustains incipient leaf damage following light to moderate frosts. It is climatically adapted to the coastal areas of the Southeastern United States and to all of Florida and Puerto Rico as well as many areas in Central and South America.

Greenalta maintains a characteristic green color which is rather consistent and undergoes little change as the plant matures or is under environmental stress. Its advantage over the other two cultivars is its less competitive nature in grass-legume mixtures. It is a moderately cold hardy tropical grass, adapted to the coastal areas of the Southeastern United States and to Puerto Rico as well as many areas in Central and South America.

Bigalta, the least cold hardy, is adapted to the warmer Atlantic and Gulf of Mexico coastal areas of the southeastern United States and to Puerto Rico and Hawaii as well as many areas in Central and South America. The grass becomes dormant following light to moderate frosts. It is especially well adapted to the wet organic soils of central and south Florida. It is higher in digestibility than either Redalta or Greenalta which made it a preferred grass for grazing animals. Bigalta maintains significantly higher digestibility at advanced stages of maturity and even after moderate frosting.

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The limpograsses are poor seed producers, thus they are normally increased vegetatively from mature cut stems incorporated into a moist to wet seed bed with a follow-up soil compacting operation. These cultivars of limpograss have been most productive when allowed to accumulate substantial amounts of forage before grazing or harvesting. Frequent close defoliation has tended to weaken stands and allow invasion of weedy species. No significant disease or insect pest have been reported on these limpograsses, but research has shown that sting nematode (Belonolimus longicaudatus) can cause significant damage on locations where they are prevalent.

The Soil Conservation Service Plant Materials Center, Brooksville, Florida will maintain for five years a breeder's block of Redalta and Bigalta. The Department of Agronomy, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, will maintain for five years a breeder's block of Greenalta. The Agricultural Research Center, Ona will also maintain a small foundation planting of Redalta, Greenalta, and Bigalta. Interested growers are encouraged to contact either their local Soil Conservation Service Field Office or the Institute of Food and Agricultural Sciences of the University of Florida for the names of commercial growers.

Effective release date will be the date of the final signature.

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*4-6-78*

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