

Manhattan Plant Materials Center



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Release of 'Verl' Eastern Gamagrass

The US Department of Agriculture (USDA), Agricultural Research Service (ARS) in cooperation with Oklahoma Agricultural Experiment Station and the USDA, Natural Resources Conservation Service (NRCS), Plant Materials Program announces the naming and release of 'Verl' eastern gamagrass [*Tripsacum dactyloides*(L.)L]. Verl is unique among eastern gamagrass commercial cultivars in that it is a fertile triploid (3 sets of chromosomes per cell) that reproduces through apomixes (produces seed without fertilization process). It was produced from a controlled pollination of a gynomonocious sex form (GSF-I which was released as germ plasm by the Manhattan PMC in 1984) diploid ($2n=2x=36$) with a monoecious tetraploid ($2n=4x=72$) to produce the fertile triploid ($2n=3x=54$). Verl is recommended for pasture or hay in the eastern and southern United States under appropriate management schemes used to prevent damage to plant stands.

Small plot evaluations of Verl were conducted in the eastern and southern US in 2001-2003 at USDA Plant Materials Centers at Brooksville, Florida; Manhattan, KS; Coffeetown, Mississippi; Elsberry, Missouri; Corning, New York; and Knox City, Texas and the USDA-ARS Southern Plains Range Research Station at Woodward, Oklahoma. Dry matter forage yield, averaged over these locations, was 7,890 kilograms per hectare which was 11 percent greater than 'Pete' eastern gamagrass. Depending on the length of growing season and the amount of available moisture, Verl can be harvested 2-to-4 times per year on a 45 day harvest schedule. Seasonal average crude protein (9.5%) and *in vitro* digestible dry matter (52%) were not significantly different from Pete in field trials. Verl has excellent seed production potential. In a replicated experiment at Woodward Verl produced 178 Kg of pure seed per hectare which was significantly greater than Pete which produced 122 Kg pure seed per hectare.

Seed of Verl is deposited in the National Plant Germ Plasm System, where it will be available for research purposes, including the development and commercialization of new cultivars. Pedigreed seed of Verl will be limited to Breeder, Foundation,

Registered, and Certified classes. One generation of seed increase will be allowed for each seed class. Breeder seed will be maintained by the USDA-ARS. Foundation seed will be under the direction of the Oklahoma Foundation Seed Stock Inc., Department of Plant and Soil Sciences, Oklahoma State University, Stillwater, Oklahoma.

Verl is named for Mr. Verl H. Louthan, retired Agricultural Research Technician, USDA-ARS Southern Plains Range Research Station, Woodward, Oklahoma. Mr. Louthan was instrumental in eastern gamagrass research characterizing its biology, agronomic potential, and the development of this cultivar.

"Planning" An Important Key to Native Planting Success

Native grass stand success can often be traced back to proper planning beginning with site preparation. Knowledge of tillage practices, crop rotation, soil fertility, and herbicide history of a potential site all contribute to the success of a native grass planting.

Proper seedbed preparation is second in importance only to favorable weather in grass establishment. The seedbed needs to be friable, firm, and without excessive weed competition and without any herbicide residue carry-over. The cover crop or range planting should be delayed if detrimental herbicide residues are suspected to exist in the field. The seeding should also be delayed if soil compaction layers (plowpan or hardpan) exist in the field that would impair production or stand establishment of the desired plants.

A standing cover or surface mulch is also important for the success of any seeding in areas where lack of soil moisture and/or soil erosion is a concern. Cover crop residue helps maintain surface soil moisture that is critical to seed germination and permanent root system development. A cover crop or surface mulch application is required for any seeding on soil where erosion or moisture conservation is a concern.

Many named varieties of adapted native grasses and forbs have been developed and released and should

be used when available. Where named varieties are not available, seed from a source as near the area being seeded as possible should be used following distance and elevation requirements set forth in Natural Resources Conservation Service (NRCS) standards and specifications. It is also important that a valid seed analysis be provided with the native seed purchased.

When seeding native grass, all seeding operations should result in the seed being placed in contact with the soil in a firm seedbed and in a non-competitive situation. Planting with a drill equipped with double disc or coulter furrow openers with depth bands along with press wheels, cultipacker, or drag chains is the preferred method of application. Seed should be planted 1/8 to 1/2 inch deep depending on seed size. Broadcasting can be used on small acreages where drilling is not physically possible. Where broadcasting is used in lieu of drilling, the seed should be covered 1/8 to 1/2 inch deep by a single disk pulled straight, rotary hoe pulled backwards, cultipacker, or other similar equipment.

For additional information on planning your native grass planting, contact your local NRCS field office. They can provide assistance in developing a native seeding plan and mix that will meet your objectives.

Annual Wildflower Workshop

The Oklahoma Native Plant Society (ONPS) along with the Oklahoma Department of Transportation and the Oklahoma State Garden Clubs are sponsoring the 28th Annual Wildflower Workshop in Ponca City, Oklahoma. The May 13 and 14 workshop will host a roster of dynamic speakers. Harvey Payne, founder of the Tall Grass Prairie, will lead off first thing on Friday morning. Additional speakers include Dr. Carl Whitcomb, author and owner of Lacebark, Inc., Mary Anne Potter, well known herbalist, will discuss "Spicing Up Your Cooking", and Dr. Bruce Hoagland, popular speaker from the Natural Heritage Inventory at OU, will provide his inside stories on the wildflowers to be seen on the Saturday field trip. David Keathly, Executive Director of the E. W. Marland Estate, will tell the story of Henry Hatashita, the master Japanese gardener hired by Marland to landscape Marland Mansion, most of Ponca City, and the State Capitol grounds.

The Friday seminar and dinner will be held at the Ponca Townsite Company Restaurant in downtown

Ponca City. Vendors will display live plants, art, and books at the dinner. The evening dinner will include a production by the Ponca City re-enactors detailing some of the history of Ponca City. The Native Plant Society Photo Contest winners will receive awards and have their photos featured on screen.

Saturday's field trip will leave at 8:00 A.M. for Kaw Lake and surrounding areas in Osage and Kay Counties. Box lunch is included with the field trip cost. The field trip will be led by Bruce Hoagland, Kim Shannon and other members of the Native Plant Society. For additional information and a copy of the workshop brochure, contact the Department of Transportation Beautification Office at (405)521-4037 or e-mail, beauty@odot.org, or visit, www.okladot.state.ok.us/beauty/index.htm.

Article summarized from the spring 2005 Gaillardia – The Newsletter of the Oklahoma Native Plant Society. Volume 20, Number 1. Joanna Orr, Author.

April 22, 2005 is the 35th Anniversary of Earth Day

Earth Day, which began in 1970, is now celebrated by millions of people worldwide. This year is its 35th anniversary, and around the world, hundreds of thousands of nongovernmental organizations, governments, teachers, and other groups, are making plans to declare that they are part of something extraordinary: a worldwide movement to protect our planet, our children, and our future.

This year, Earth Day Network's theme is "Protect Our Children and Our Future." Despite the extraordinary and often false obstacles that we face in our efforts to protect our natural resources and our biodiversity, few will dare argue with the moral imperative to protect our children from harm. As a consequence of that imperative, we call on governments, corporations, and all people in our troubled world to work with us to ensure that children everywhere are healthy, educated, and free from oppression.

This Earth Day, hundreds of major events will take place around the world, in communities large and small, in classrooms, in parks and on beaches, in places of worship. From Kiev to Beijing, from India to Romania, from Africa to the Americas, we will demonstrate our diversity and our resilience. We look forward to your participation and working with you to make this Earth Day the beginning of a global effort to protect our children's future.

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