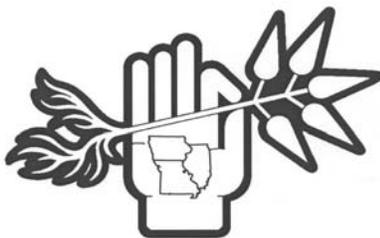


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Plants for Conservation

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Elsberry Plant Materials Center for Programs in Missouri, Illinois, and Iowa

Spring 2004



Elsberry PMC Plans Spring Training/Tour

The Elsberry Plant Materials Center (PMC) is planning to host the annual PMC spring training/tour for NRCS, SWCD, MDC and DNR personnel on June 9, 2004.

This training/tour is open to personnel in the three states being served by the PMC (Iowa, Illinois, and Missouri). The scheduled date is Wednesday, June 9, 2004, starting at 10:00 AM and ending about 3:00 PM.

PMC staff will be glad to assist those individuals wanting more in-depth discussions on selected topics.

than Rountree. OZ-70 is approximately two weeks later in booting than Rountree and forage quality is better when tested at Elsberry. (See below.)

Rountree exhibits considerable more rust when compared to OZ-70 in Southern Missouri. OZ-70 also has very good seed production with a 2003 yield of 280 bulk pounds of clean seed per acre.

Forage clippings of OZ-70 Germplasm were compared with Rountree. These samples were replicated and taken at different stages of growth. Forage quality of the OZ-70 selection compared favorably to Rountree as indicated by data below.



OZ-70 Big Bluestem on July 9, 2003
 Elsberry Plant Materials Center



2004 Featured Plant Release 'OZ-70'

Germplasm Big Bluestem

(*Andropogon gerardii*),
 Selected Class

Jerry Kaiser
 Plant Materials Specialist

What does OZ-70 mean? OZ is for the Ozark region and the 70 means the big bluestem is represented by 70 collections that were selected and crossed based on their forage potential. These 70 collections were from 43 collections from Missouri, 14 collections from Arkansas, and 13 from Oklahoma.

Germplasm is the genetic material that determines the morphological and physiological characteristics of a species. A Selected Class is the germplasm showing promise of desirable traits for which it was selected as in this release for grazing and forage potential.

The OZ-70 selection has very good forage production and vigor that appears to be comparable or better

Clipping Data	Percent Crude Protein		Percent ADF		Percent NDF	
	OZ	RT	OZ	RT	OZ	RT
6/19/02	14.3	8.0	30.9	35.7	55.8	60.8
7/8/02	8.2	5.8	34.1	33.0	59.3	60.5
8/30/02*	11.4	11.9	34.3	34.7	54.6	56.6

* Regrowth material from 7/8/02 clipping.
 OZ = OZ-70 Germplasm big bluestem,
 'RT' = 'Rountree' big bluestem, ADF = acid detergent fiber, NDF = neutral detergent fiber

The OZ-70 big bluestem is established on several field plantings in southern Missouri and being monitored by field personnel on grazing days or forage production. In 2004 foundation seed was sold from the Elsberry PMC to the commercial market for making this selection available to the public in 2005.



Elsberry PMC Manager Retires.

Jerry Kaiser
 Plant Materials Specialist

Jimmy Henry, Elsberry Plant Materials Center Manger, retired December 31, 2003, after serving at the PMC since 1968 and as Center Manager since 1975. Jimmy's career began in 1966 as a soil conservationist in Ohio. His career was interrupted for a tour of duty in Viet Nam after which he came to Elsberry as Assistant Manager and then as PMC Manger.

We wish Jimmy the best in his retirement and thank him for 38 years of dedicated service with SCS/NRCS; especially within the Plant Materials Program.

Until a new manager is selected Jerry Kaiser, Plant Materials Specialist, is also the acting manager at Elsberry. Please contact Jerry with any needs from the Elsberry PMC.



Outrider Herbicide for use with Warm Season Grasses.

Jerry Kaiser
Plant Materials Specialist

The Elsberry PMC has been working with James Graham from Monsanto on the use of Outrider herbicide (Sulosulfuron).

Outrider herbicide is a selective herbicide for control of annual and perennial grass and broadleaf weeds in noncrop areas. The application of the herbicide is important with our use of native grasses, especially now with the announcement that BASF will pull Plateau from the private market.

Outrider market is for controlling Johnsongrass and other weeds on roadsides. The use of Outrider has application for native grasses in establishment and post treatment effects for non-crop areas.

In 2003 the Monsanto lab tested injury to the seedling stage of several native prairie grasses listed below and bermudagrass for post emergence applications effects of Outrider.

The post emergence application was tested on 'Rountree' big bluestem, 'Aldous' little bluestem, 'Rumsey' indiagrass and 'Wrangler' bermudagrass. These species showed no symptom treated in the seedling stage. Slight stunting within one week of application on 'Rivera' bermudagrass, 'Topgun' buffalograss, 'El Reno' sideoats grama, and 'Cave-in-Rock' switchgrass. 'Pete' eastern gamagrass had significant injury up to 20% at the two highest rates, but substantially less than grain sorghum that was used for the control with 98% injury.

Outrider does an excellent job on post control on Johnsongrass in early boot to full seedhead stage in stands of native grasses. Even for eastern gamagrass, when it is an established stand, however some stunting of eastern gamagrass can occur. Outrider can be used in control of tall fescue to improve native grass establishment. Additional testing

needs to be done, but other study has shown that higher rates of 1.5 to 2.0 ounces/acre of Outrider should provide tall fescue control.

Review the Outrider label on what other weed species Outrider can control. Additional information on this product can be obtained from James C. Graham, Monsanto Company, 800 N Lindbergh Blvd., St. Louis MO 63167. james.c.graham@monsanto.com or 314-694-2209 office, 314-805-7867 mobile.



PMC PLANT RELEASES IN 2003

Jerry Kaiser
Plant Materials Specialist

The Plant Materials Center cooperatively released eight Source Identified Germplasms in 2003 originating from Iowa. They are 9068680, Southern Iowa Germplasm Wild Bergamot; 9068684, Northern Iowa Germplasm Rough Blazing Star; 9068685, Central Iowa Germplasm Rough Blazing Star; 9068686, Southern Iowa Germplasm Rough Blazing Star; 9068608, Northern Iowa Germplasm Purple Prairie Clover; 9068706, Central Iowa Germplasm Switchgrass; 9068620, Northern Iowa Germplasm Prairie Junegrass; and 9068621, Central Iowa Germplasm Prairie Junegrass.

The seed comes from collections within the three zones Northern, Central, and Southern and individual collections are propagated to produce increase seed.

This increase seed is being released to commercial growers in Iowa to make those species available for the private market. To find growers of these releases go to the website at www.agron.iastate.edu/icia/ Iowa Seed Directory [click on Source ID Seed](#) to find species and growers producing those species.

[Click on Seed Producers and Approved Conditioners for Growers'](#) addresses and phone numbers.



Diversity in Native Plantings

Steven Bruckerhoff,
Conservation Agronomist

The PMC started a study in 2002 that addresses seeding mixtures of warm season native prairie grasses, legumes and forbs. Questions are often asked about what native legumes and forbs are best to include when making a native grass planting and how and when to plant.

To date there has been one season of planting, a winter dormant seeding on 1/20/02 and a spring seeding on 5/20/02. Frequent mowing was used in establishment year as weed control rather than herbicides because of the diversity of species within the plots. Plots were seeded in a replicated block with four replications.

Mixtures included one or two grasses and an equal mix of 11 legumes and forbs. Species included are as follows: big and little bluestem, switchgrass, sideoats gramma, Eastern gamagrass, indiagrass, Virginia wildrye, Western wheatgrass, Junegrass, porcupine grass, bush clover, purple and white prairie clover, desmodium, goat's rue, wild senna, Illinois bundleflower, lead plant, oxeye false sunflower, grayhead coneflower, and prairie coreopsis.

The grass species were well represented in all plots except for the June grass, Western wheatgrass, and porcupine grass.

Legume and forb species best represented in the winter dormant seeding were oxeye false sunflower and grayhead coneflower, and well represented were desmodium and wild senna.

Best represented species in the spring planting were again oxeye false sunflower and grayhead coneflower and also purple prairie clover, desmodium, and Illinois bundleflower. Well represented were bush clover and lead plant.

See the 2003 PMC ATR for more information.