



conference) and October (onsite meeting). This committee is comprised of the State Conservationists from Missouri, Iowa and Illinois and the Technical Support Leaders from each state, as well as, the Elsberry Plant Materials Program Staff. They provide leadership in the coordination, communication, support, and integration of applied plant science technology within and between states, the region and National Plant Materials Advisory Committees, and other partners. The more active this committee, the stronger and more successful will be the plant materials program in the states being served by the PMC.

### **Breeder and Foundation Seed Production**

The PMC is responsible for Breeder and Foundation seed production of plant releases. During 2002 the PMC had foundation seed production fields of the following grasses, legumes and forbs.

GRASSES
Canada wildrye
Virginia wildrye
Indiangrass
Little bluestem
'Rountree' big bluestem
'OH-370' big bluestem
'Cave-In-Rock' switchgrass

LEGUMES AND FORBS
New England aster
Oxeye false sunflower
Pale purple coneflower
Prairie blazing star
Purple prairie clover
Rough blazing star
Roundhead bush clover
Prairie coreopsis
Tall dropseed

Foundation and certified seed of the releases from the PMC are provided to seed growers located in Missouri and Iowa.



### **2002 Plant Releases**

The Elsberry PMC in cooperation with the University of Northern Iowa, Native Roadside Vegetation Center, Iowa Department of Transportation and the Iowa Crop Improvement Association have released the following source identified native ecotypes in 2002: Northern, Central and Southern Iowa New England Asters, Northern and Southern Iowa Pale Purple Coneflowers, Southern Iowa Tall Dropseed, and Central and Southern Iowa Rigid Goldenrod.

These plants will be used for prairie and roadside plantings, prairie landscaping, plantings for wildlife food and habitat (WHIP), critical area cover and Conservation Reserve Program (CRP).

The objective of the program's developing source identified native plant releases is to increase availability of native grasses, forbs, and legumes to landowners at affordable costs.

The PMC in cooperation with the Missouri Department of Conservation released 'Cuivre River' Virginia Wildrye as a Selected Class release.

This plant can be used for a cover crop in woody plantings, CRP native mixtures, and grazing.

## Collection and Evaluation of Native Cool Season Grasses and Sedges for Filter Strips

The PMC initiated the collection of native cool season grasses and sedges in the spring of 2002. Plans were to collect a minimum of one to a maximum of three collections per state per species. The purpose of this study is to explore the use of these plants (native cool season grasses and sedges) in a filter strip situation. The following is a listing of species planned for collection: Virginia and Canada wildryes, Junegrass, bluejoint, sweet woodreed, river oats, longhair sedge, Frank sedge, shoreline sedge, wheat sedge and greater straw sedge.



Green bulrush is also being considered because of its growth habit. The seed germinates on the seed stalk and as the plant matures the seed stalk weakens and falls to the ground. The young plantlets, which began germinating on the seed stalk, develop a root system and when it touches the ground it sets roots and begins to grow.

## New Studies Planned for 2003

### Control of Reed Canarygrass in Riparian Buffers

The presence of reed canarygrass in areas being planted to CRP, EQIP, and WHIP riparian buffers affects the long term survival and growth of seedling trees. Effective control methods for reed canarygrass are

needed to obtain sufficient survival and growth of planted trees to meet program needs.

The objectives of this study are:

1. To determine the most effective chemical control methods for reed canarygrass.
2. To test non-chemical treatment for weed control when establishing trees.
3. To evaluate shade tolerant tree or shrub species suitable for streambanks that can withstand some competition from reed canarygrass or other competing cool season grasses that limits the establishment of the desired tree species.

### Incorporating Native Warm Season Grasses into Cool Season Pastures with Grazing Management

The need exists for providing quality forage during the summer dormancy period using cool season grasses. Warm season grasses can help provide this forage, but loss of production during the establishment period has slowed the utilization of these species.

The objectives of this study are:

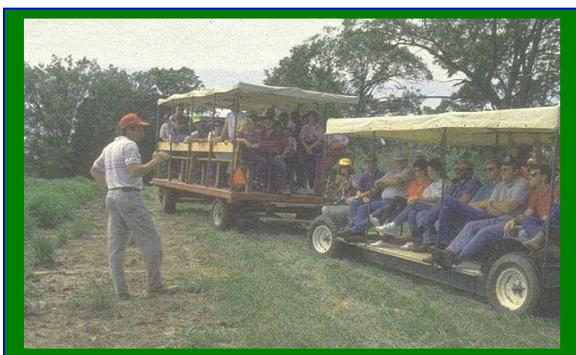
1. To establish warm season grasses into a cool season pasture without losing production during the establishment period.
2. To incorporate the warm season species without the use of chemicals and in some instances without the use of tillage.
3. To maintain a mixture of cool and warm season species in the same pasture and utilize each at the appropriate time.

This study will be conducted on a fescue pasture with almost no diversity of species. Warm season species will be no-till broadcast, no-till drilled, or strip-tilled and billion seeded. Managed rotational grazing will be used to limit fescue competition and allow warm season species to establish with minimal loss of production during establishment year.

## Plant Materials Center Annual Training/Tour

The PMC held a one-day training/tour session, June 13, 2002. Forty-five individuals from Illinois, Missouri and North Dakota attended. These individuals represented NRCS employees, Missouri Department of Conservation, SWCD, and the public. The training session introduced the group to the use of plant materials for the conservation planning process.

The tour portion of this session involved viewing and discussion of many studies the PMC is conducting along with the specialized seed harvesters and seed separators.



## Weather Records

The PMC has been taking weather data since it opened in 1934 and is one of the oldest National Weather Service data collection sites in the United States. The following tables show extremes and how 2002 compared to the long-term average for temperature and precipitation.

Lowest temperature in 2002 was  $-2^{\circ}\text{F}$  on March 4. Highest temperature in 2002 was  $99^{\circ}\text{F}$  which occurred on July 9, and August 1 and 2.

## Significant Wet and Dry Periods in 2002

		Average
Jan. 1 – Jan 29	00.46 inch	1.75 inches
April 8 – June 13	21.58 inches	8.44 inches
June 14 - Aug 11	00.99 inch	6.62 inches
Aug 24 – Sept 14	00.00 inch	2.30 inches
Nov 7 – Dec 17	00.13 inch	3.55 inches

## 2002 Weather Data Elsberry PMC Precipitation (Inches)

Month	2002	72 Yr Ave	Depart
January	2.53	1.87	+.66
February	1.24	1.99	-.75
March	3.21	3.15	+.05
April	4.46	3.70	+.76
May	13.97	4.09	+9.87
June	3.15	3.78	-.63
July	0.79	3.41	-2.62
August	4.29	3.35	+.94
September	1.29	3.30	-2.01
October	3.89	3.00	+.88
November	.61	2.87	-2.25
December	1.83	2.46	-.63
TOTAL	41.26	37.04	+4.22

## Monthly Average High Temperature ( $F^{\circ}$ )

Month	2002	70 Yr Ave	Depart
January	45	38	+7
February	47	43	+4
March	51	54	-3
April	68	67	+1
May	73	77	-4
June	86	85	+1
July	91	90	+1
August	88	88	0
September	82	80	+2
October	62	69	-7
November	51	50	+1
December	44	42	+2
AVERAGE	66	65	+1



### For More Information

Visit our Plant Materials web site at <http://Plant-Materials.nrcs.usda.gov> or the NRCS National Plant Data Center web site at <http://plants.usda.gov> to find more information on plants and how they can be utilized in solving conservation problems. If you have any questions, contact us at the Plant Materials Center.

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