

# Doubling Wildrye's Chromosomes Brightens Pasture Grass Future

WASHINGTON, D.C. — It's amazing what 14 more chromosomes can do for Russian wildrye, a pasture grass introduced to the U.S. Northern Plains area from Siberia in 1927.

John Berdahl, a plant geneticist with the Agricultural Research Service, has created Russian wildrye plants that are called tetraploids because they have double the usual 14 chromosomes. The extra chromosomes result in a plant that produces larger seeds and much more ro-

bust seedlings, solving the biggest barrier to wider use of the grass.

Russian wildrye helps keep cattle well fed by providing forage with higher digestibility and protein, especially in late summer and fall when other grasses, such as crested wheatgrass, tend to become less nutritious. But farmers and ranchers still often choose those other grasses because they're easier to grow.

Berdahl, plant physiologist Al Frank and colleagues at the ARS Northern Great Plains Research Laboratory in Mandan, N.D.,

hope to change that by using tetraploids to breed new Russian wildrye varieties. They expect to one day see them planted extensively on marginal land in the Northern Plains and Intermountain Region.

Berdahl and colleagues created the new plants without any gene transfer or sophisticated biotechnology. Instead, they induced chromosome doubling by pressurizing flower-bearing stalks in canisters filled with nitrous oxide gas. Nitrous oxide is commonly known as "laughing gas." The ni-

trous oxide technique enables production of numerous tetraploid seeds and development of genetically diverse populations from which to select superior plants.

It will take about five years to

release the first tetraploid Russian wildrye variety to seed growers. Then it will take a few more years for seed growers to produce enough pedigreed seed for sale to farmers, bringing the new variety to market around 2010.

## November Red Meat Production 2 Percent Lower Than Year Ago

WASHINGTON, D.C. — Commercial red meat production for the U.S. totaled 3.91 billion pounds in November, down 2 percent from the 3.97 billion pounds produced in November 2001, according to the National Agricultural Statistics Service (NASS).

November 2001 contained 22 weekdays (including two holidays) and four Saturdays. November 2002 contained 21 weekdays (including two holidays) and five Saturdays.

Beef production, at 2.16 billion pounds, was 2 percent below the previous year. Cattle slaughter totaled 2.86 million head, down 1 percent from November 2001. The average live weight was 1,260 pounds, up 5 pounds from November a year ago.

Veal production totaled 16.9 million pounds, 4 percent above November a year ago. Calf slaughter totaled 91,100 head, up 4 percent from November 2001. The average live weight was 308 pounds, unchanged from November a year ago.

Pork production totaled 1.71 billion pounds, down 1 percent from the previous year. Hog kill totaled 8.66 million head, 1 percent below November 2001. The average live weight was 268 pounds, down 1 pound from November a year ago.

Lamb and mutton production, at 17.8 million pounds, was down 9 percent from November 2001 and 6 percent below the previous record low set in 1998. Sheep slaughter totaled 271,300 head, 5 percent below last year. The average live weight was 132 pounds, down 6 pounds from November a year ago.

January-November red meat production was 43.3 billion pounds, 3 percent above the previous year. Accumulated beef production was up 4 percent from last year, veal was down 1 percent, pork was up 3 percent, and lamb and mutton production was down 3 percent.

## AgrAbility To Exhibit At Farm Expos

STATE COLLEGE (Centre Co.) — AgrAbility for Pennsylvanians, the USDA-funded project that provides assistance to farmers and farm family members who are coping with a disability or long-term illness, will be hosting an exhibit at upcoming state agricultural expositions.

Jan. 7-9, producers may find AgrAbility at the Keystone Farm Show in York. At the Keystone, AgrAbility will be sharing space with Penn State Cooperative Extension at booth 219 and 220.

Jan. 11-18, AgrAbility staff may be found at the Pennsylvania Farm Show, Harrisburg, where they will be located with the Penn State Cooperative Extension Ag Safety and Health exhibit.

AgrAbility for Pennsylvania

supports Pennsylvania farmers and their families through the combined resources of Penn State Cooperative Extension and Eastern Seals Central Pennsylvania.

The project can assist those who are struggling with arthritis, back injury, amputation, chronic pain, head injuries, hearing impairment, heart conditions, stroke, respiratory diseases, visual impairment and many other health conditions.

Project staff helps by providing on-site assessments of farm operations and the identifying the limitations of the prospective client. Staff then recommends farm equipment adaptations, home modifications, and adaptive equipment.

The project refers families to local service providers and funding sources; and can also provide peer and caregiver support from other farm family members with disabilities. AgrAbility for Pennsylvanians also offers education and training through in-service sessions and public awareness activities at state and county levels.

Those interested in learning more about the AgrAbility program are invited to visit the display at either exhibition. To contact AgrAbility for Pennsylvanians, call toll-free within Pennsylvania to (866) 238-4434 or (814) 863-7490.

The AgrAbility Website may be found at: <http://AgExtEd.cas.psu.edu/agrab/>.

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