

CERTIFIED SEED CLEANINGS

Utah Crop Improvement Association
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Room 320, AgSci Bldg., Utah State University
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(435) 797-2082
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2005

ANNUAL SEED SCHOOL AND SEED INDUSTRY MEETINGS

The Utah Seed Council and Utah Crop Improvement Association will jointly host the Utah Seed Industry Annual Meetings and Seed School on Friday, Feb. 18, 2005 in Brigham City, UT. We will meet at the Bridgerland Applied Technology College on 1100 South (main access road from I-15 to Hwy 89/91 and Logan) in conference room 103, starting at 8:30 a.m. with light refreshments. See next page for complete program. **PLEASE RSVP USING THE COUPON ON THE LAST PAGE.**

UAES BARLEY VARIETY RELEASE

Dr. Dominique Roche, Utah State University

The variety 'Goldeneye' has been recently recommended for release by the Variety Review Committee of the Utah Agricultural Experiment Station.

Goldeneye is a six-rowed, erect-growing spring feed barley with a lax head intended for irrigated production. Tables 1, 2, and 3 (next page) indicate that Goldeneye is similar to Millennium and Statehood in yield, but with better test weight and higher protein content. It is relatively tall and will produce lots of straw, but is much more resistant to lodging than Steptoe.

It yields more than Aquila and has higher protein, but test weight will not be quite as good. (Aquila was released last year to provide a six-row feed barley with a low tendency to lodge, earlier heading date, and similar yield potential and equivalent test weight to most two-rowed barley varieties commercially available.)

RELEASE OF WHITE RIVER GERMPLASM INDIAN RICEGRASS

Dr. Tom Jones, USDA/ARS

Forage and Range Research Lab, Logan, UT

White River Germplasm (Selected Class, genetically manipulated track) is intended for use in restoration, reclamation, and rehabilitation of rangelands in the Upper Colorado River and Green River Plateaus. Primary users would be the Bureau of Land Management and the surface mining industry. The parent population of White River, PI 232329, was collected 40 km east of Rangely, CO along Route 64 by F.J. Herman and B.M. Leese of the USDA-ARS in 1955. Average annual precipitation at the site is 250 to 300 mm, elevation is about 1650 m, winterhardness zone is 4a and heat zone is 5.

From a 182 plant nursery of PI 232329, 32 lines were selected for high germination and seed yield and the seed bulked to form White River (G1).

Seed of the G2 generation will be maintained by the USDA/ARS/FRRL in Logan and will be made available to commercial growers for production of G3 to G5 seed by the Utah Crop Improvement Association.

The financial support of the U.S. Department of the Interior-Bureau of Land Management Great Basin Native Plant Selection and Increase Project and the U.S. Department of Agriculture-Forest Service Rocky Mountain Research Station for the development and seed increase of this germplasm is gratefully acknowledged.



**UTAH CROP IMPROVEMENT ASSOCIATION
AND
UTAH SEED COUNCIL**

SEED SCHOOL AND ANNUAL MEETINGS

*Bridgerland Applied Technology College
Conference Room 103
325 West 1100 South, Brigham City, UT
Friday, Feb. 18, 2005
8:30 a.m. to 3:00 p.m.*

- 8:30 a.m. Pre-Meeting Social – Light Refreshments
- 9:00 a.m. Welcome – Steve Burningham, Secretary, Utah Seed Council
Eli Anderson, President, UCIA
- 9:05 a.m. Barley Program Update – Dominique Roche, PS&B Dept., USU, Logan
- 9:20 a.m. Safflower Varieties from Oil Seed to Bird Seed – Art Weisker, Seed Tec,
Woodland, CA
- 9:50 a.m. Reclamation Crops: Seed Specs for Planting 100,000 Acres/Year in
Utah/Colorado Wildlands
- Steve Monsen (20 min.), USFS (Retired), Consultant to Uncompagne Plateau
Project, Colorado
 - Jason Vernon (20 min.), UDWR, Great Basin Research Center, Ephraim, UT
 - Questions, Discussion (10 min.)
- 10:40 a.m. Break – Light Refreshments
- 10:50 a.m. Maximizing Alfalfa Flower Pollination – Jim Cane, USDA Bee Lab, Logan, UT
- 11:15 a.m. 2004 Seed Crop Visual Report – Stanford Young, UCIA, USU, Logan, UT
- 11:45 a.m. General Reports
- A. Utah Seed Dealers – Mike McDermott, Western, Seeds, Inc., Tremonton, UT
 - B. Utah Dept of Agriculture and Food
 - C. Utah Agricultural Experiment Station
 - D. USU Extension
 - E. Utah Crop Improvement Association
- 12:15 p.m. UCIA Business Meeting
- 1:00 p.m. Luncheon – Hosted by USC and UCIA
Maddox Ranch House Restaurant (The Lodge, upstairs), Perry, UT
- 2:15 p.m. Utah Seed Council Business Meeting (at The Lodge)
The Past, Present, and Future?? of the Utah Seed Council
- 3:00 p.m. Adjourn

Table 1. Yield and test weight performance of Goldeneye in Utah (2002-2004)

	2000		2001		2002		2003		2004		Average	
# Locations	4		3		4		3		4			
	Y ¹	TW ²	Y	TW	Y	TW	Y	TW	Y	TW	Y	TW
Goldeneye	121.9	51.9	101.8	52.7	78.0	50.8	103.2	53.2	114.4	54.6	103.9	52.6
Millennium	109.5	50.2	102.8	51.8	72.4	51.0	103.1	51.8	128.4	52.9	103.2	51.5
Statehood	105.3	48.4	95.3	50.2	70.7	48.4	103.2	49.9	118.3	52.4	98.6	49.9
Step toe	105.6	50.1	92.3	50.8	58.6	49.3	101.0	52.9	118.0	52.9	95.1	51.2
Aquila	109.3	51.6	80.0	54.1	62.9	51.4	99.9	54.3	100.5	55.0	90.5	53.3
Baronesse	103.8	52.4	94.0	53.8	62.7	51.9	87.4	52.9	114.1	54.9	92.4	53.2
Xena	93.7	52.2			65.1	52.1	96.2	54.3	111.5	55.5	91.6 ³	53.5 ³

¹ Yield

² Test weight

³ Data averaged for years excluding 2001

Table 2. Other performance traits for Goldeneye in Utah averaged over years 2002-2004

	Percent Protein	Height (in.)	Heading date
No. Location/Years	15	9	Logan (4)
Goldeneye	16.9	31	16 June
Aquila	15.2	29.2	13 June
Baronesse	17.4	26.3	18 June
Xena	--	27.3	16 June
Statehood	15.7	26.8	14 June
Step toe	15.7	28.3	16 June
Millennium	14.4	26.4	15 June

Table 3. Performance traits for Goldeneye in the network of Western Regional Irrigated Spring Barley Nurseries in 2001, 2002 and 2003. For each year yield trials in 12 or 13 locations were conducted in the following states, California, Idaho, Montana, North Dakota, Oregon, Utah, Washington, Wyoming and Saskatchewan (Canada).

	Yield	Test Weight	Lodging	Height	Heading	Protein
	(bu/a)	(lbs/bu)	(%)	(in.)	(Julian Days)	(%)
Location/Years	38	38	18	38	30	6
Goldeneye	102.8	50.6	16	29.4	178	13.2
Aquila	94.7	51.9	9	30.0	175	12.4
Baronesse	92.8	51.7	34	27.8	181	14.1
Step toe	100.3	48.9	36	29.7	176	11.5
LSD (0.05)	6.3	0.85	--	1.5	1.6	--

RELEASE OF BLUE POWER GERmplasm INDIAN RICEGRASS

Dr. Tom Jones, USDA/ARS

Forage and Range Research Lab, Logan, UT

Blue Powder Germplasm Indian ricegrass has been released as a selected class, genetically manipulated track, pre-variety germplasm. Indian ricegrass is the state grass of Utah, as well as Nevada. Up to the present time, no material has been released specifically for ornamental use. Blue Powder is proposed for release on the basis of its glaucous (blueish) foliage, decorative bouquet, prominent stature, and high germinability. High germinability is desirable to facilitate rapid and efficient propagation by the nursery industry. The nursery and landscape industries, as well as landowners and homeowners, would be the primary beneficiaries of Blue Powder Germplasm.

Seed of the G1 generation will be maintained by the USDA-ARS-FRRL, Logan, UT. It will be made available to commercial growers for production of nursery stock by the Utah Crop Improvement Association. Seed through the G3 generation will be eligible for certification. Upon proper approval it is intended that Blue Powder will be utilized as part of the Utah's Choice program for drought-tolerant ornamental plantings.

RELEASE OF BOZOISKY II RUSSIAN WILDRYE

Dr. Kevin Jensen, USDA/ARS

Forage and Range Research Lab, Logan, UT

The United State Department of Agriculture - Agricultural Research Service and the Utah Agricultural Experiment Station announce the release of the cultivar 'Bozoisky-II' Russian wildrye for use on arid and semiarid rangelands as a winter forage and a revegetation grass in the Intermountain Region and Northern Great Plains of the western U.S.A. Bozoisky-II, which is a broad-based 15 clone synthetic, was tested as part of the Strategic Environmental Research and Development Program (SERDP) project CS-1103 to identify resilient plant characteristics and develop wear resistant plant cultivar(s) for use on military training lands. Bozoisky-II was selected for seedling vigor (emergence from a deep planting depth), seed mass, seed yield, vegetative vigor, total dry matter production, and response to drought. Bozoisky-II has a much broader genetic base than other Russian wildrye cultivars and has been evaluated extensively on rangeland sites in western United States with seedling

establishment equal to or greater than commercially available cultivars.

Relatively slow seedling growth and development are the most serious limitations within Russian wildrye. Selection emphasis on Bozoisky-II was for increased seedling vigor during establishment. In seeded trials at Guernsey, WY (established 2004); King Hill, ID (2003); Dugway Proving Grounds, UT (2003); and Soda Lake, WY (1991), when planted on a pure live seed basis (PLS), Bozoisky-II had significantly more seedlings per unit area (m²) than did Bozoisky-Select. Increases in dry matter yield over Bozoisky-Select and Mankota were observed at Green Canyon, UT, Mead, NE, and Sidney, MT (not significant at P<0.05).

Within the Northern Great Plains and the Intermountain region, Bozoisky-II is adapted to sagebrush, mountain brush and pinyon juniper on arid to semiarid rangelands. It is best adapted to the loam and clay soils of the Intermountain region; however, acceptable stands can be obtained on a wide range of soil types. Russian wildrye's resistance to drought exceeds that of crested wheatgrass; however it is more difficult to establish.

Breeder, Foundation, and Certified seed classes will be recognized. Breeder seed will be maintained by the USDA-ARS Forage and Range Research Laboratory at Logan, UT. Foundation seed will be produced by the USDA-ARS at Logan and distributed to seed growers by the Utah Crop Improvement Association. Protection will be applied for under the Plant Variety Protection Act of 1970. Conditions of this protection specify that seed of the cultivar Bozoisky-II can be marketed only as a class of certified seed.

GREAT BASIN NATIVE PLANT SELECTION AND INCREASE PROJECT

The Utah Crop Improvement Association has an integral role in this project through a stock seed buy-back program with certified seed growers. Please contact the UCIA for information on opportunities to grow seed of reclamation plants. These are normally small acreage fields and require special care, but the seed prices can make it very attractive. The following information is taken from a Great Basin Restoration Initiative brochure:

PROJECT SUMMARY

The use of native plants for rehabilitation after wildfires and restoration of disturbed wildlands is being encouraged by various BLM programs, initiatives, and

policies. This project integrates several proposals to increase native plant production and use within the Great Basin, utilizing an applied science approach in a collaborative project.

PROJECT GOALS

- Increase the native plant materials available for restoration of disturbed rangelands.
- Provide an understanding of species variability and develop seed transfer guidelines.
- Develop cultural practices and seed and seeding technology for native forbs and grasses.
- Improve the availability of native seed supplies.
- Evaluate practices for managing wildland shrub stands to enhance seed production and improve the diversity of introduced grass seedings.
- Develop demonstration areas, manuals, popular publications and a website to facilitate application of research results.

Germplasm evaluations of more than 40 native species will assist with their selection and release and the development of seed production guidelines for increased seed supplies.

Specific Objectives

- 1) Develop plant materials, characterize variation within species, and devise seed transfer guidelines.
- 2) Evaluate patterns of within-species genetic variation.
- 3) Examine seed germination, seedling establishment, and affecting factors.
- 4) Develop seed testing, storage, conditioning and seeding technology.
- 5) Determine optimal planting depths, seeding rates and dates, and other cultural practices for native forbs.
- 6) Develop herbicide options and optimal irrigation practices for commercial seed production.
- 7) Identify forb pollinators, and, when necessary, develop pollinator management programs for enhancing seed production.
- 8) Identify forb seed predators and develop management strategies for insect pests that impact seed production.
- 9) Work with Foundation Seed organizations and private growers to facilitate seed increase of new restoration species.

COOPERATORS

USDI Bureau of Land Management, Great Basin Restoration and Native Plant Initiatives, and the UT, NV, ID, and OR State Offices
USDA Forest Service, Rocky Mountain Research Station, Shrub Sciences Laboratory, Provo, UT and Boise, ID
Utah Division of Wildlife Resources, Great Basin Research Center, Ephraim, UT
USDA Agricultural Research Service, Forage and Range Research Laboratory, Logan, UT
USDA Natural Resources Conservation Service, Aberdeen Plant Materials Center, Aberdeen, ID
USDA Agricultural Research Service, Bee Biology and Systematics Laboratory, Logan, UT
USDA Agricultural Research Service, Western Regional Plant Introduction Center, Pullman, WA
USDA Forest Service, National Tree Seed Laboratory, Dry Branch, GA
Association of Official Seed Certifying Agencies and State Foundation Seed Programs of ID, NV, OR, UT, and WA
Brigham Young University, Departments of Integrative Biology and Plant and Animal Science, Provo, UT
Colorado State University, Tri-River Area Cooperative Extension, Grand Junction, CO
Oregon State University, Malheur Experiment Station, Ontario, OR
Utah Crop Improvement Association, Logan, UT
Private seed industry.

For more information, visit these web sites:

<http://www.fire.blm.gov/articles/restore.htm>

<http://www.fs.fed.us/rm/boise/teams/shrub/default.htm>

RSVP PLEASE

Please complete this coupon and send in an envelope or call (435) 797-2234, or fax (435) 797-3376, or email (keren@mendel.usu.edu) if you plan to attend the Seed School so we can make arrangements for the luncheon.

I (we) will be attending the UCIA/USC Seed School meeting at Brigham City, UT on Friday, Feb. 18, 2005.

Number of people attending luncheon _____

Name(s): _____

Company/Farm/Agency _____

WILDLAND CERTIFIED SEED COLLECTOR WORKSHOP

A workshop was sponsored by the UCIA on Sept. 22, 2004 at Snow College in Ephraim, UT to cover topics of interest to UCIA wildland seed collectors.

One of the main topics covered was the permitting procedures for seed collection on public lands. Representatives of the Forest Service (Linda Nielson, Manti-LaSalle District, Ephraim Office) and Utah Trust Lands (Scott Chamberlain, Richfield) talked about the policies they have in place for seed collection permits.

The BLM, however, has a newly revised policy from the Utah State Office. This policy (Instruction Memorandum No. UT 2003-080) is of general interest as it explains the reasoning behind the decision making as to when and how permits are issued. Selected portions of this memorandum follow:

Purpose: This IM establishes a uniform Seed Collection and Pricing Policy within Utah Bureau of Land Management (BLM). The need for a seed collection policy within Utah BLM has been evident for several years. Discrepancies on how seed and other vegetative materials are permitted, harvest methods, prices charged, amounts permitted, compliance, and harvest timing and contractor selection are evident. This IM will establish a framework that standardizes seed collection procedures and a pricing list while still allowing the Field Office Manager (FOM) leeway for resource management.

UCIA OFFICERS & DIRECTORS

Directors elected by the membership at the 2002 Annual Meeting (Feb. 11, 2004) were:

- District 2: Chris Allen
- District 5: Blaine Meek
- District 6: Daron Smith

An Ex-officio Director and alternate representing the seed conditioners were chosen at the Utah Seed Council Business meeting: Ron Stevenson, Stevenson Intermountain Seed, and Paul Beus, Wheatland Seed.

Officers elected at the Board of Directors Meeting (March 19, 2003 in Salt Lake City) were:

- President: Eli Anderson, Bothwell
- Vice President: Fred Wagstaff, Wallsburg
- Exec. Committee: Curtis Marble, Corinne

NOTE: Members of the Association in District 1, 3, 4, and 7 will be receiving ballots shortly to choose their nominees for Director, 2005-2006.

Utah is currently in the fifth year of a drought. Protection of the vegetative resource is paramount and caution should be used when authorizing seed collection during these periods of vegetation stress. Verification of good vegetative condition (species, vigor, root reserves, viable seed, seed abundance, etc.) will be required prior to seed collection permit issuance. The long term health and abundance of the species and the vegetative community must be assured. If the future vegetative and ecological site condition can be assured, then a seed collection permit may be issued at the discretion of the Field Office. If other priorities will not allow Field Offices (FO) to assess the vegetative condition, or if the vegetative resource is in questionable vigor, then a permit should not be issued.

Permits will only be issued by the Authorized Officer (AO) after first obtaining an original permittee signature on the permit and the attached permit stipulations. Permits should only be authorized by a resource staff specialist who is familiar with the area and vegetative conditions where the seed is to be harvested.

Permittees will be encouraged to keep a seed collection log listing materials collected by species and amounts with global positioning system locations taken. BLM should stress to the permittee that source identified seed can command higher prices on the market.

The BLM pricing for collected seed will be standardized within the State by species or subspecies and will be added to and updated yearly as this IM is reissued. The State Director has the authority to set the pricing list based upon current prevailing market values. The price will be 15% of the average price per pound paid by seed dealers over the last five years, based upon uncleaned ("dirt") weight.

Contact: Jack Brown (801) 539-4064 and Verlin Smith (801) 539-4055.

The Utah Crop Improvement Association **CERTIFIED SEED GLEANINGS** is published periodically to promote the production of high quality seed.

EDITOR: Dr. Stanford A. Young, Utah Agricultural Expt. Station Seed Certification Specialist, and Secretary-Manager, Utah Crop Improvement Association

UCIA EXECUTIVE COMMITTEE:

- Eli Anderson, President
- Fred Wagstaff, Vice President
- Blaine Meek, Director