

CERTIFIED SEED CLEANINGS

Utah Crop Improvement Association Room 320, AgSci Bldg., Utah State University

(435) 797-2082

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ANNUAL SEED SCHOOL AND SEED INDUSTRY MEETINGS

The Utah Crop Improvement Association will host the Utah Seed Industry at the UCIA Annual Meeting and Seed School on Friday, Feb. 17, 2006 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.**

WILDLAND CERTIFIED SEED COLLECTOR WORKSHOP II

Back by popular demand, a second workshop was sponsored by the UCIA on Sept. 22, 2005 at Snow College in Ephraim, UT to cover topics of interest to UCIA wildland seed collectors.

Whereas the workshop last year centered on permitting procedures for seed collection on public lands, one of the main topics this year was the enforcement of the provisions of those permits, and the degree of protection that the holder of a permit has against infringement by interlopers.

Verlin Smith, BLM Utah State office, stated that BLM seed policies have been developed to a) be consistent with the land use plan, b) must maintain desired ecosystems (soil, water, vegetation, etc.), c) receive a fair market value for seed harvested, and d) prevent unauthorized use of public lands and resources. In order to facilitate these objectives, non-exclusive permits for seed collecting are issued by an authorized officer for a specified harvest time period and specified area of collection (legal description and location wording/map). In some instances, permits will be granted through a competitive bid process which awards exclusive collection rights for a species in a specified geographic area. In either case, the original permit (with unique office field number) must be in the possession of the collector. It includes the permit holder's name and phone number, vehicle make, model, and license number, species, and any stipulations. This permit must be presented in the field to a BLM official

or BLM law enforcement (LE) officer upon request. BLM LE officers generally check out larger permit area awards, and check others on an opportune basis. If persons collecting seed do not have proper permits, the LE officers will confiscate the seed and cite offenders. County sheriff's officers may be called on for help occasionally.

Legitimate permit holders are encouraged to be observant of other groups collecting seed, but are cautioned to be friendly, NOT CONFRONTATIONAL. Permit status may be inquired about. If it appears a violation is occurring, information as to persons, vehicle identification, location, and species collected and amounts should be provided to the nearest BLM office, or BLM or County Sheriff law enforcement officer.

Ron Torgeson, Utah Trust Lands Administration, said that recent large encroachments of non-permitted timber cutting on trust lands led to the appointment of Lt. Ronald C. Barton as a criminal investigator for trust lands through the Attorney General's office. Permits are required for fire wood cutting, tree harvesting, seed harvesting, and plant removal. Non-exclusive permits are written where total value does not exceed \$500, but exclusive contracts may be negotiated for values over \$500. Though Ron covers a huge amount of area throughout the state, he is making his presence known. He would like to hear about information regarding non-permitted seed collecting or permit violations. His phone is 801-538-5142, fax 801-538-5118, cell 801-231-5745, and email rbarton@utah.gov.

UTAH CROP IMPROVEMENT ASSOCIATION

SEED SCHOOL AND ANNUAL MEETING

*Bridgerland Applied Technology College
Conference Room 103
325 West 1100 South, Brigham City, UT
Friday, Feb. 17, 2006
8:30 a.m. to 2:15 p.m.*

- 8:30 a.m. Pre-Meeting Social - Light Refreshments
- 9:00 a.m. Welcome - Fred Wagstaff, President, UCIA

Session Chairman: Chris Allen, UCIA Director, Cove, UT

- 9:05 a.m. Barley - Against the Ropes?
1. Feed Barley, Malting Barley, Cholesterol Control, Latest Trial Results - Dominique Roche, PS&B Dept., USU, Logan, UT
 2. Small Grains Forage Trials - Tom Griggs (Logan, UT) and David Drake (Richfield, UT), USU Extension
 3. Barley vs. Corn (plus Safflower?)
 - Dairy Feed Rations - Lynn Godfrey, ADVS Dept., USU, Logan, UT
 - Production Economics - Information from Bruce Godfrey, Economics Dept., USU, Logan, UT
- 10:00 a.m. Picture the 2005 Seed Crop - Stanford Young, UCIA, USU, Logan, UT
- 10:30 a.m. Break - Light Refreshments

Session Chairman: Bruce Hubbard, UCIA Director, Corinne, UT

- 10:40 a.m. Alfalfa Seed Production Update
- RR Alfalfa Isolation
 - Agronomics, Contracts, National Alfalfa Forage Alliance
 - Certification Paperwork
 - Gail Maslonka, Forage Genetics, Nampa, ID and Michael Bouck, UCIA, USU, Logan, UT
- 11:05 a.m. Yellow Rust in Wheat in Utah? - Kent Evans, Biology Dept., USU, Logan, UT
- 11:30 a.m. Triticale, Wheat, and Clearfield Wheat Update - David Hole, PS&B Dept., USU, Logan, UT and Chad Shelton, BASF, Rosalia, WA.
- 11:55 a.m. General Reports
- A. Utah Seed Dealers
 - B. Utah Dept. of Agriculture and Food
 - C. Utah Agricultural Experiment Station
 - D. USU Extension
 - E. Utah Crop Improvement Association
- 12:25 p.m. UCIA Business Meeting
- 1:15 p.m. Luncheon - Hosted by UCIA
Maddox Ranch House Restaurant (The Lodge, upstairs), Perry, UT

Tom Shore, US Forest Service in Ephraim, explained that his office issues more permits than all other Forest Service offices in the state combined. He cited regulations which state that it is “unlawful for any person, firm, company, partnership, corporation, or business to harvest or transport timber, forest products, or other native vegetation without proof of ownership.” Any law enforcement officer, or ranger, or special agent of the USFS or USBLM may stop a vehicle to inspect the timber, forest product, or native vegetation (this would include seed) in any vehicle or other means of conveyance to determine whether permit provisions have been compiled with. Any such material in violation of the permitting process may be seized and disposed of as provided by rule of the agency, and violation of the permitting process is a class B misdemeanor. That having been said, Tom admitted that they have too few rangers for the huge amounts of area involved, but would solicit information from citizens that may see or suspect violations.

SPHAERALCEA: A DIFFICULT GENUS WITH WEAK DISTINCTIONS

Michael Piep, assistant curator of the Intermountain Herbarium at USU, presented an excellent discussion and show and tell about major globemallow species in Utah at the Seed Collector Workshop. Globemallow is an important genus for seed collection and replanting in Utah and throughout the Intermountain West, but there is substantial confusion as to the identification and location of the main species collected. This confusion becomes relevant to the UCIA in regards to placing the proper species name on a Source Identified tag.

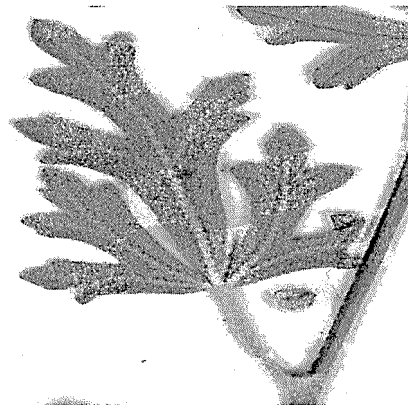
Michael said that there are 40 species worldwide, 15 in the Intermountain region. Four species are fairly widespread (though each is more prevalent in certain geographic locations) in Utah - *S. coccinea*, *S. grossularifolia*, *S. munroana*, and *S. parvifolia*, while four others are restricted to a single county and six others are endemic to Utah. Globemallows have weak character differences between species, complicated by polyploidy and hybridization.

Globemallows are annual or perennial herbs or shrubs with entire to deeply dissected or compound leaves, stellate (star-shaped) branched hairs on stems and leaves, usually red-orange flowers, and seeds borne in a schizocarp (circular arrangement of segments forming a ring, each bearing a flattish, dark brown seed about 2 mm long). They occur in deserts, valleys, and foothills, often in disturbed sites or among other vegetation in greasewood, blackbrush,

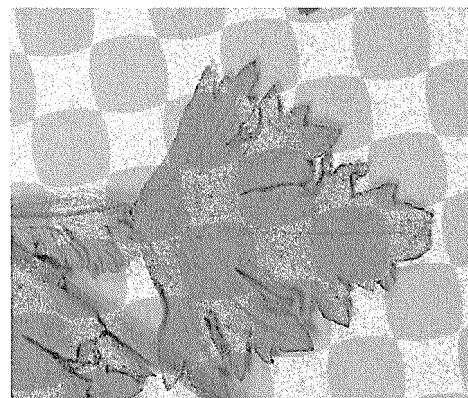
sagebrush, rabbitbrush, shadscale, pinion juniper, and Gambel oak communities.

Following is a key to the four common species in Utah:

- A. Leaves entire or shallowly lobed
 - 1. Leaves moderately to densely pubescent, gray-green, relatively thick, margins weakly crenulate (notched in circular shape) - *S. parvifolia*
 - 2. Leaves moderately to sparsely pubescent, greenish, relatively thin, margins coarsely and irregularly crenulate - *S. munroana*.
- B. Leaves deeply lobed
 - 1. Inflorescence relatively narrowly thyrsoid (compactly arranged, shaped like a pine cone) or paniculate (loosely but compoundly branched) with 2+ flowers per node, usually glabrous or sparsely pubescent greenish leaves, mericarps (segments making up the seed bearing circular schizocarp) higher than wide - *S. grossularifolia*.
 - 2. Inflorescence racemose (loosely branched) with 1 (occasionally 2 or 3) flowers per node, grayish-green leaves densely pubescent, mericarps nearly as high as wide - *S. coccinea*.

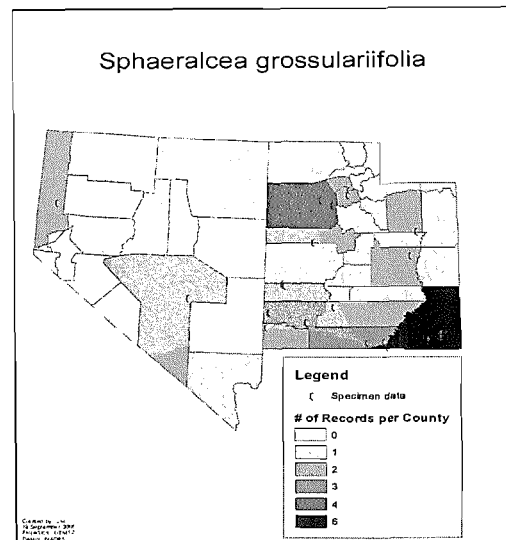
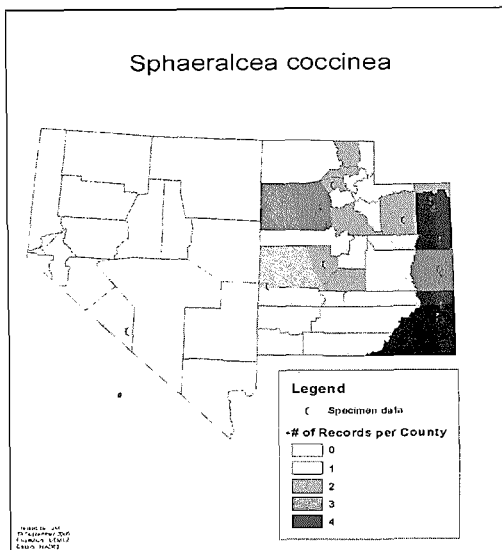
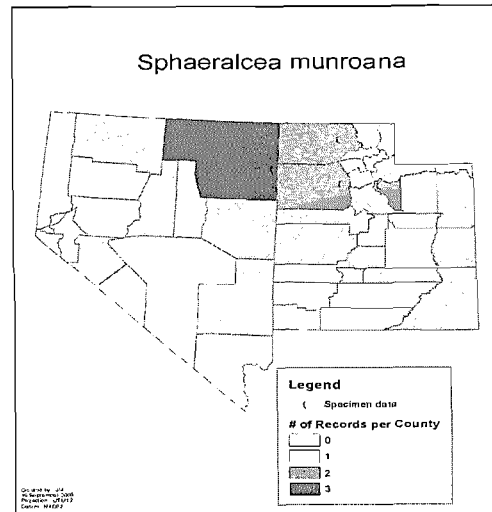
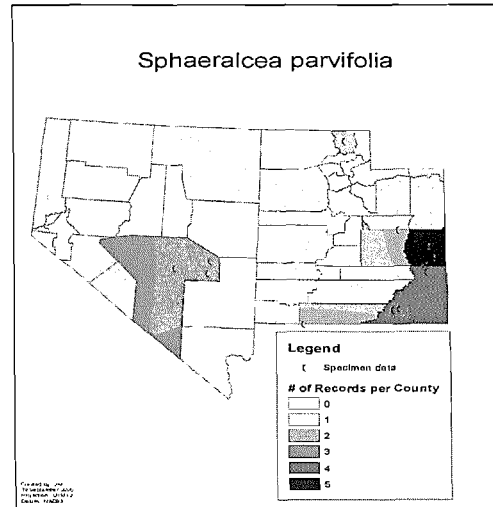


Deeply Lobed



Not or Shallowly Lobed

Additional characteristics of each species: *S. parvifolia* is a perennial with erect, short branched stems, arising from a woody thick crown; herbage is gray-green, inflorescence relatively narrowly thyrsoid; occurs most often in disturbed areas and in greasewood, blackbush, sagebrush and PJ communities; especially prevalent in southeast Utah and higher elevations of the Arizona strip. *A. munroana* is a perennial arising from a woody thick crown with erect stems that are mostly unbranched or short-branched; herbage is green, inflorescence relatively narrowly thyrsoid; occurs in valleys and foothills in rabbitbrush and sagebrush communities; especially prevalent in Northwest Utah and Northeast Nevada. *S. grossularifolia* is a perennial with unbranched or often short-branched stems arising from a woody thick crown; herbage is greenish; occurs in deserts, valleys, and foothills in shadscale to sagebrush communities and is especially prevalent in southeastern and central western Utah; it is a complex species with great variation in the dissection of the leaves. *S. coccinea* is a perennial with mostly unbranched stems sprouting from woody, branched crowns arising from running roots, often forming colonies; herbage is grayish green; flowers arising singly from lower leaf axils and from bracts in upper racemes; occurs on sandy and gravelly soils from greasewood to PJ and Gambel oak communities, especially prevalent in west-central and eastern Utah.



RELEASE OF MAPLE GROVE GERMPLASM LEWIS FLAX

Stanley Kitchen, USFS, RMRS, Provo, UT

Maple Grove Germplasm (Selected Class, Natural Track) was collected in 1988 on Fishlake National Forest lands about 20 km northwest of Salina, Juab County, UT, elevation 1910 meters. Precipitation at the site is about 330 to 360 mm, two thirds of which occurs from Oct. 1 to April 30. Sagebrush is the landscape woody dominant with some Gambel oak present; herbaceous associates include bluebunch and western wheatgrass, globemallow, and mountain buckwheat.

Maple Grove is a perennial (5-7 yrs.) forb with generally unbranched stems 30-50 cm tall (taller under cultivation). Leaf, flower, fruit and seed size, and stem number per plant are mid-range for the species; flower color is light blue, also intermediate for the species. It was selected for release from among 19 accessions from the Intermountain West (13 from Utah) based on drought resistance, plant longevity, seedling vigor, seed production, and rust resistance. It is expected to have about 75% of the seed production of the variety Appar, which was originally released as a Lewis flax *Linum lewisii* cultivar but has recently been shown to be a naturalized European *Linum perenne*.

It is anticipated that the Maple Grove Germplasm will have primary application in restoration and reclamation seed mixes developed by government and private entities requiring a component of indigenous native forbs.

G3 seed will be maintained by the Aberdeen Plant Materials Center. Growers may produce two generations (G4 and G5) from the G3 seed.

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:

Fred Wagstaff, President
Blaine Meek, Vice President
Daron Smith, Director
Stanford Young, Sec./Mgr.

SAFFLOWER VARIETIES FROM OIL SEED TO BIRD SEED

Art Weisker, Seed Tec, Woodland, CA
Michael Bouck, UCIA, USU, Logan, UT

At the 2005 Seed School, Art Weisker traced the Old World origin of safflower to its introduction into the U.S. in 1925 and its development in Montana, California, and later in other Western states. Safflower was used mainly as a yellow dye in the Old World, but its main uses in the U.S. are as industrial (mostly linoleic) and edible (mostly oleic) oils and as birdseed. Montana State University developed several varieties in the 1950's and Seed Tec has released several varieties from their research program in Woodland, California including S208, the most widely-grown variety in Utah. The best oleic oil varieties rival olive oil in taste, texture, and zero trans-fatty acid content.

Safflower is a member of the sunflower family and is a highly branched, herbaceous, thistle-like annual, usually with many long sharp spines on the leaves and flower bracts. Seed is approximately the size as plump barley seed (though more triangular) and has a white seed coat, though in some varieties the darker interior shows through. Safflower in Utah is mostly grown on arable dryland following wheat or barley because of its abilities to extract water from the soil with its deep taproot. These characteristics allow farm managers to mechanically and chemically control problematic weeds such as jointed goatgrass typical to dryland wheat fields and optimize fertility inputs. There is also some safflower production on irrigated farmland.

Safflower is 30% cross pollinated, and is highly attractive to pollinating insects. Seed for planting should therefore follow proper seed production isolation practices. In order to insure varietal purity, certified seed should be used. Many of the new varieties of safflower are protected under PVP such that any seed sold must be certified.

Though safflower has been grown to some extent in Utah since the 1950's for both oil and birdseed, it is recently gaining more attention due to its rotation crop advantages with small grains. Research on safflower cultural practices and fertility has been ongoing by Ray Cartee, UAES Farm Director. Art Weisker provided some of Seed Tec's newer varieties and lines for evaluation on Chris Allen's farm in Cove, Utah, in 2004.

To identify overall variety performance in northern Utah, a trial was conducted in 2005 by Michael Bouck of the UCIA in cooperation with USU Extension agents Clark Israelsen and Mike Pace. Twelve safflower varieties and breeding lines from Seed Tec, Safflower

Technologies, and Montana State University, were planted at Blue Creek, Box Elder County (dryland site), and at North Logan, Cache County (irrigated site). The Blue Creek site was not harvested due to grasshopper damage.

The following table lists the variety or breeding line, seed lb/acre, lb/bushel, color score (0-10, with 0 = bright white, the whiter the better for bird seed), percent oil content, and plant height in inches. A repeat of the dryland location of this trial is planned for 2006.

Table 1. 2005 harvest data of safflower varieties at North Logan, Utah.

Variety	DM lbs/ac	Lbs/bu	Color Score	Oil Content %	Plant Height inches
0158	2051.5	42.4	4.4	36.77	21.2
9262	1949.9	44.5	0.9	37.75	27.5
S-208	1942.7	42.4	1.0	39.07	26.9
4409	1933.7	44.9	0.6	39.30	28.5
5244	1884.9	45.2	2.4	38.30	28.3
Finch	1802.3	47.0	1.9	35.95	29.4
S-719	1800.7	43.3	3.5	40.65	26.7
2104	1771.4	42.7	1.3	36.97	25.6
S-541	1746.3	43.2	3.3	41.17	30.6
Hybrid 9022	1675.8	44.0	4.0	32.70	29.4
Montola 2003	1535.6	43.1	1.0	37.62	25.9
Nutrasaff	1440.3	39.0	10+	45.30	29.3
LSD(0.01)	305.3	0.6	1.0	0.57	1.8

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. 17, 2006.

Number of people attending luncheon _____

Name(s): _____

Company/Farm/Agency _____

UCIA OFFICERS & DIRECTORS

Directors elected by the membership at the 2005 Annual Meeting (Feb. 18, 2005) were:

- District 1: Eli Anderson
- District 3: Bruce Hubbard
- District 4: Fred Wagstaff
- District 7: Loni Hammond

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 (Dec. 8, 2005 in Salt Lake City) were:

- President: Fred Wagstaff, Wallsburg
- Vice President: Blaine Meek, Elberta
- Exec. Committee: Daron Smith, Delta

NOTE: Members of the Association in District 2, 5 and 6 will be receiving ballots shortly to choose their nominees for Director, 2006-2007.