

UP Native Plant Program
Upper Colorado Plateau Native Plant Materials Assessment
Summary of Results
February 2009

I. Purpose of the Survey:

To assess the current and potential demand for native plant materials for the upper Colorado Plateau.

II. Introduction:

The Uncompahgre Plateau (UP) Native Plant Program is a collaborative partnership comprised of federal and state agencies, utility companies and public land-focused community interest groups committed to the development of native plant materials for the Colorado Plateau region. In 2002, the US Depts. of the Interior and Agriculture drafted a Report to Congress entitled: *‘Interagency Program to Supply and Manage Native Plant Materials for Restoration and Rehabilitation of Federal Lands’*, which identified a deficiency in regionally-adapted native plant materials for the Colorado Plateau. The investigation found that the majority of key native species were not available in sufficient quantities for large-scale project plantings. Based on these findings, the UP Native Plant Program was initiated to provide an adequate and reliable source of Colorado Plateau-derived native plant materials. Six years later, we are interested in re-evaluating the current and potential demand for native plant materials for the upper Colorado Plateau. The findings from this survey will be used to:

1. Modify the direction of the current UP Native Plant Program;
2. Inform private growers and seed companies of the demand for native seed, encouraging this new industry; and
3. Update and inform state, regional and national land management agencies as to the current demand for native seed in the upper Colorado Plateau.

III. Methodology

A target group of potential survey participants, from federal and state agencies and private industry, was established, all of whom are currently or will potentially be involved in rehabilitation/restoration efforts on the upper Colorado Plateau area. A web-based version of the demand survey with 39 questions was created using Survey Monkey (www.surveymonkey.com). The demand survey was available on-line from August 2008 – February 2009. During this time period UP Staff members contacted, via email and telephone, the potential survey participants. Approximately 150 individuals were contacted regarding the survey; 31 individuals completed the survey. Final response data sets were downloaded from the SurveyMonkey website into an Excel database and analyzed.

IV. Participants:

Participants by State		
AZ	1	3%
CO	20	65%
ID	1	3%
UT	7	23%
WY	2	7%
Total	31	

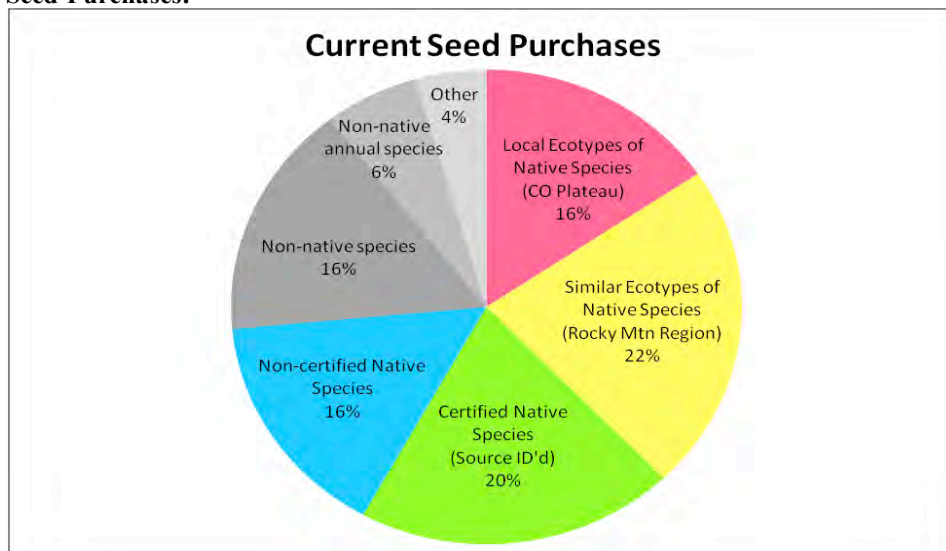
Participants by Agency/Organization		
BLM (Multi-state)	14	45%

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Colorado Dept. of Transportation	2	7%
Colorado Division of Wildlife	1	3%
National Park Service – Colorado	1	3%
Utah Dept. of Transportation	2	7%
US Forest Service (Multi-state)	6	19%
USDA-NRCS - Colorado	2	7%
Private Env. Consulting Firm	2	7%
Energy Company	1	3%
Total	31	

V. Results

Current Seed Purchases:



- **88%** stated that their agency/organization was *required to follow policies/guidelines* for the type of seed used in projects.
- Of the 88% that must follow policies/guidelines:
 - **93%** stated that seed must be *certified weed free*.
 - **39%** stated that *native seed is required* (non-natives are prohibited).
 - Several stated that natives are preferred, but non-natives can be used when needed.
- **75%** purchase seed *by individual project* (rather than seasonally or annually).
- **72%** purchase the *majority of their seed as a mix* (rather than by individual species).
- **52%** primarily purchase seed *through their individual office or district*. The NRCS and private contractors do not purchase seed themselves.
- **69%** primarily purchase seed *directly from a seed company*.
- **71%** stated that they would be *willing to contract directly with a grower* for seed purchases.
- **53%** state that the *elevation source of seed is important* when purchasing.

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- **66% don't know** if any of the seed currently purchased has been **wildland collected**. Common species that are wildland collected include: Sagebrush (Wyoming), fourwing saltbush, salina wildrye, and needle-and-threadgrass.
- **Success of germination and/or establishment** and the **availability of native species desired** were cited as the top two **factors that determine if native seeds are purchased**. Respondents wrote in that a species ability to compete with invasive species (in particular cheatgrass and annual wheatgrass) was important.

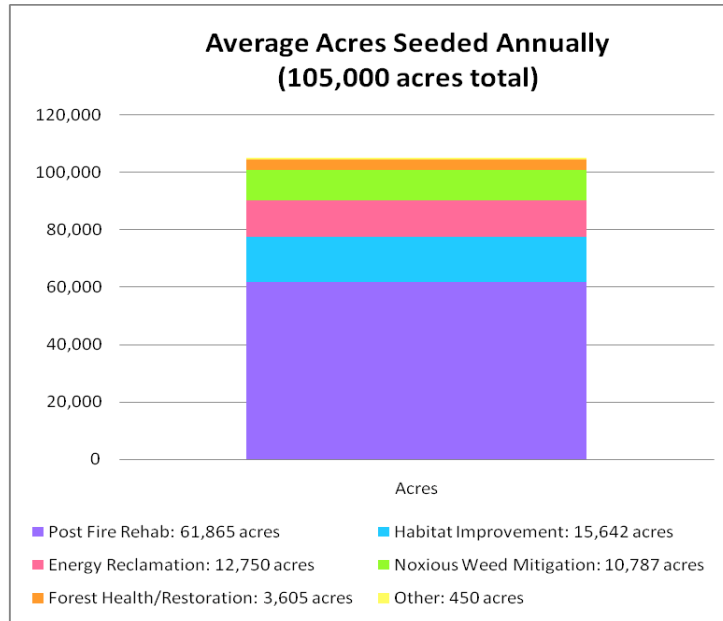
Current Storage:

- **66%** stated that their current storage facility is **local**.
- **31%** stated that their current storage facility is of **adequate size**.
- **22%** have **temperature-regulated** storage facilities.
- Comments regarding current storage facilities include:
 - We have no long term storage facility for seed.
 - Trash cans in an uninsulated shed!
 - Our current storage facility is too small with no climate control. Seed viability drops rather quickly.

Natives vs. Non-natives:

- **53%** of respondents feel that **natives are NOT as successful as non-natives**.
 - Specific situations in which natives are not as successful as non-natives sited include sites that are: low-elevation, arid, dominated by invasives, highly disturbed, or in need of short term establishment.
- **75%** feel that they **have the necessary knowledge to successfully use species native to the Colorado Plateau**. Respondents stated that the following knowledge is lacking:
 - More info on what species/ecotypes have proven successful in other reclamation projects in the region.
 - Best time for seeding and seed bed preparation.
 - Proper establishment of a variety of native seeds.
 - Successful seeding techniques for pinyon-juniper woodlands, sagebrush, and greasewood flats in southwestern Colorado.
- **69%** define a **"local ecotype"** as a coming from a source within the ecoregion (**Colorado Plateau**).

Current Seeding Projects:



- 77% stated that the *majority of seeding projects occur between 5,000 - 7,000 ft.*
- Most respondents use *percent plant cover* as the primary determinate *in evaluating the success* of a revegetation or restoration project.
- 59% of agency/organizations *monitor* the success of past seeding projects on an *annual basis*.

Purchasing Natives:

- 56% stated that they *could NOT currently obtain* sufficient quantities of the native seed.
- 75% cited *availability* as the main *limiting factor* to currently purchasing native seeds.
 - *Cost* was cited as the *second limiting factor*.

Budgets:

- 63% feel that their current seed *budget is sufficient*. The majority of funding comes from fire budgets.
 - One respondent stated, “We have plenty of funds, it’s the availability of the seed that is the problem”.
- *Current annual budgets* for seed purchases *fluctuate greatly (from: \$500 to \$300,000)*. Many stated seed budgets are dependent on fire rehab and other project funds.
- When asked to determine an ideal *annual seed budget* to create “*ideal rehabilitation/restoration projects*” utilizing all of the native species they want, in sufficient quantities, responses varied greatly: from *\$2,000 to \$300,000*. Many stated that they didn’t know. The BLM federal seed purchasing program stated that \$2 million would be an ideal seed budget for western CO/eastern UT.
- *Actual budget vs. ideal budget:* For those that answered both the current annual budget and ideal budget questions with dollar amounts, an average of *3.5 times more funding was requested*.
- 81% are *willing to pay more for native seed* in the beginning to encourage the industry.

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Top 5 currently purchased species (natives and non-natives) are:

	Grass	Forb	Shrub
1	Indian ricegrass	Blue Flax	Fourwing saltbush
2	Western wheatgrass	Small Burnet	Big Sagebrush
3	Bottlebush squirreltail	Globemallow	Gardner's saltbush
4	Sandberg bluegrass	Alfalfa	Shadscale
5	Slender wheatgrass	Blanket flower	Wyoming big sage

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TOP 5 CHOICES: If seed is available, the average amount of native GRASSES (in pounds) respondents will need on an annual basis:

Rating	Species	Pounds
1	Western wheatgrass (<i>Pascopyrum smithii</i>)	35,855
2	Indian ricegrass (<i>Oryzopsis hymenoides</i>)	23,544
3	Squirreltail (<i>Elymus elymoides</i>)	15,888
4	Needle-and-threadgrass (<i>Stipa comata</i>)	7,615
5	Sandberg bluegrass (<i>Poa secunda</i>)	6,734
6	Basin wildrye (<i>Leymus cinereus</i>)	4,260
7	Sand dropseed (<i>Sporobolus cryptandrus</i>)	3,937
8	Salina wildrye (<i>Elymus salina</i>)	3,700
9	Prairie junegrass (<i>Koeleria macrantha</i>)	2,240
10	Muttongrass (<i>Poa fendleriana</i>)	1,237

- Others native grasses needed include: galletta grass - 20,000 lbs.; bluebunch wheatgrass -10,000 lbs.; thickspike wheatgrass - 2,000 lbs.

TOP 5 CHOICES: If seed is available, the average amount of native FORBS (in pounds) respondents will need on an annual basis:

Rating	Species	Pounds
1	Blue flax (<i>Linum lewisii</i>)	5,230
2	Utah sweetvetch (<i>Hedysarum boreale</i>)	3,652
3	Arrowleaf balsamroot (<i>Balsamorhiza sagittata</i>)	2,820
4	Scarlet globemallow (<i>Sphaeralcea coccinea</i>)	2,392
5	Western yarrow (<i>Achillea millefolium lanulosa</i>)	2,232
6	Bluestem penstemon (<i>Penstemon cyanocaulus</i>)	1,521
7	Silky lupine (<i>Lupinus sericeus</i>)	1,000
8	Hairy goldenaster (<i>Heterotheca villosa</i>)	640
9	Sulfur buckwheat (<i>Eriogonum umbellatum</i>)	525
10	Bladderpod (<i>Lesquerella rectipes</i>)	400

- Others native forbs needed include: *Sphaeralcea parvifolia* - 5,000 lbs.

TOP 5 CHOICES: If seed is available, the average amount of native SHRUBS (in pounds) respondents will need on an annual basis:

Rating	Species	Pounds
1	Wyoming sagebrush (<i>Artemisia tridentata Wyoming</i>)	45,507
2	Fourwing saltbush (<i>Atriplex canescens</i>)	28,317
3	Antelope bitterbrush (<i>Purshia tridentata</i>)	2,870
4	Mountain big sagebrush (<i>Artemisia tridentata vaseyana</i>)	2,831
5	Mountain mahogany (<i>Cercocarpus montanus</i>)	1,335
6	Saskatoon serviceberry (<i>Amelanchier alnifolia</i>)	1,220
7	Dwarf rabbitbrush (<i>Chrysothamnus depressus</i>)	1,213
8	Stansbury cliffrose (<i>Cowania stansburiana</i>)	1,125
9	Black sagebrush (<i>Artemisia nova</i>)	472
10	Green ephedra (<i>Ephedra viridis</i>)	205

- Others native shrubs needed include: Shadscale -1,000 lbs.; Winterfat (no amount listed)