BLM SEEDS OF SUCCESS FIELD DATA FORM (Revised 16 April 2008)

Use BLOCK CAPITALS
Complete all fields.
Circle relevant descriptions shown in *italics*.

MSB Serial Number:
NRCS PLANTS Code: DENU2
Cleaning Facility: BEND

Date(s) Collected (DD/MM/YY): 12/08/2008 **Seed Collection Reference Number:** UT931-105

Collector(s): DANIEL C CLOWARD

Country: USA **Ecoregion** (T,O, B): WASATCH AND UINTAH MTS,19 (O) **State:** UTAH County: SANPETE

Location Details: NEAR THE SUMMIT OF HWY 29 BETWEEN EPHRAIM AND ORANGEVILLE. DOWN OFF SKYLINE DRIVE NEAR GAUGEING STATION. IN MEADOW ON NORTH SIDE OF ROAD.

Lat. (dg/min/sec) (ex: 40° 34' 19.5" N): 39 20'05.68"N GPS Used?: ***Yes*** *No* If no, please see other side.

Long. (dg/min/sec) (ex: 107° 36' 51.54" W): 111 25'58.99"W GPS Datum: ***NAD83*** *NAD27* *WGS84* *Other:*

Elevation (feet): 9897 Landowner Details (Permission?): USFS, YES

HABITAT DATA

Habitat, Associated Species & Ecological Site Descriptor: ALPINE MEADOW WITH GRASSES AND SEDGES

Modifying Factors: *Mowed* *Burned* ***Grazed*** *Flooded* *Seeded* *Trampled* *Other:*

Land Form: MOUNTAIN TOP MEADOW Slope°: 20

Land Use: RECREATION/GRAZING/LUMBER Aspect: *N* *NE* ***E*** *SE* *S* *SW* *W* *NW*

Geology: GRANITE AND SHALE

Soil Texture: *Clay* *Silt* *Sand* *Other:* ***sandy clay*** Soil Color: WHITE TO TAN

COLLECTION DATA - If plant has been identified by a specialist, please see other side.

Family: RANUNCULACEAE **No. of Plants Sampled** (min. 50): 200

Genus: DELPHINIUM **No. of Plants Found (approx.):** 750

Species: NUTTALLIANUM **Area Sampled (acres):** 2

Subspecies/Variety:

Seeds Collected From: ***Plants*** *Ground* *Both*

Plant Habit: *Tree* *Shrub* ***Forb*** *Succulent* *Grass/Grasslike* Plant Height (feet): 2

Native plant materials development and research this accession will be used for:

Notes to assist identification of pressed specimen (e.g. flower color, odor, presence of closely related species):

Common Name(s) of Plants: TWOLOBE LARKSPUR

Photograph Taken: *Digital* *35mm* Reference (PLANTS Code_Coll. Number_Pic. No.): DENU2_UT931-105_a,b,d Where Image will be Filed: RED BUTTE GARDEN

PRE-COLLECTION CHECKLIST

(Check box to right if condition indicated by **boldface** *is met or is the most frequently occurring condition.)*

Assess Population & Seed Dispersal Stage

Approximate area of population: 200 x 200 (feet, **yards**, miles……)

Approximate total number of individual plants present and accessible: *0-50* ***50-500*** *500-5000* *> 5000*

Evidence of disturbance or damage: *Resown* *Burnt* *Sprayed* ***No damage***

Readiness of population for collecting: give percentages or circle the most frequently occurring:
Vegetative *In flower* *Immature seeds* ***Around natural dispersal*** *Post dispersal*

Estimate the number of individual plants at natural dispersal stage: *<50* ***>50***

Is the population:
A single population *A population with distinct sub-populations* (Can you sample separately or from the most suitable?)

Assess Seed Quality & Availability

On a typical individual, where on the plant/branch/fruit is the seed at natural dispersal stage: **Recognized**

Using a cut test on the seeds at this stage, give percentages or circle the most frequently occurring:
Healthy *Insect-damaged* *Empty* *Moldy* *Malformed/other damage*

Estimate the number of healthy seeds per fruit:

Estimate the number of fruits per individual plant: 15

Should Seed Be Collected On This Trip?

Using the above information, if you only collect 20% of the healthy seeds available today, will this result in a collection of **>10,000** healthy seeds? yes

OTHER DATA

If GPS was not used, please state method of obtaining lat. and long.: *Altimeter* *Map*

Map Publisher:

Series: Scale:

Map Coordinates: Map Date (DD/MM/YY):

Herbarium voucher specimens:

Number of Pressed Specimens: *2* *3* *4* *or more* **Date Voucher Was Taken (DD/MM/YY):** 02/07/2008

Circle one:

a. *All Herbarium duplicates will be sent to Kew to arrange labeling, verification and distribution (default)*

b. *One duplicate will be sent to _____ herbarium for verification, other duplicates will be sent by the collector to Kew to arrange labeling and distribution.*

c. *All Herbarium duplicates will be sent to _____ herbarium that has agreed to arrange labeling, verification and distribution.*

d. ***A herbarium voucher has been sent to the National Herbarium at the Smithsonian, and the remaining will be distributed by the ___UT931__ collecting team to regional herbaria: ____BYU____, ___UofU_____.***

By default, besides any herbaria mentioned above, one specimen will be sent to Kew and one to the Smithsonian. If you would like to request that additional specimens be sent to regional and/or local herbaria, please fill in the following information:

Regional Herbarium:
Stanley L Welsh
Herbarium
Brigham Young Univ.
378-MLBM
Provo, UT 84602

Local Herbarium:
Garrett Herbarium (UT)
Utah Museum of Natural History
University of Utah
1390 E. Presidents Circle, Rm. 102
Salt Lake City, Utah 84112-0050
U.S.A.

If collection has been identified by a specialist, please complete sections below:

Material Identified: *In Field* *From Pressed Specimen on Day of Collection* *From Pressed Specimen on Another Date* *From Photograph*

Date identified (DD/MM/YY):

Identified by: Organization:

Seed Test/Packaging Record

SOSUT-93108-03

DENU2-SOSUT-931-105-08
Delphinium nuttallianum
twolobe larkspur
BLMS 1.1 P

PRE-PACKAGING CHECKLIST

	# of Tags	Date/Initials
Tag Count Complete	0	1/28/09 AC
OSU Sample Taken	# of pounds 1.75g	
Sample Sent	(Y)/ N	TZ

Test Results: Both in-house and/or OSU

100 Seed X-ray 90%
Moisture Content 4.6%
Seed Count 52,500

REMARKS ENTERED

GERM — TZ OSU Strat Time: NC___ 4C ___ 8C ___ 13C___

PURITY 95 or NOXIOUS WEED only —

MOISTURE CONTENT (use one of three methods below)

Dole Meter			**Moisture Analyzer**			**HygroPalm**			
Dial Reading	M.C.	Grams	Temp °C	Time Used	% M.C.	Time	Air Temp	ERH	M.C.
						—	72°	21%	4.6%

X-Ray Results

90 % Filled

Results from 100 Seed X-Ray

PURITY (Use OSU sample chart to determine wt. of sample)

Wt. of Sample: _____ gms
Wt of Impurities:
- Crops _____ gms
- Inerts 1.72 gms
- Weeds _____ gms
- Noxious _____ gms

obvious buggy seed. (bug-holes)

Wt. of All Impurities: 1.72 gms
Wt. of Clean Seed 34.52 gms
TOTAL (Impurities + Clean Seeds) 36.24 gms
Percent Purity = (Wt. of clean seeds) / (Wt. of Total) X 100 = 95 %

SEEDS PER POUND

** NOTE: If difference between max and min is less than 10% of the average samples, data is acceptable

Weight to three decimal places, when possible
Wt. of 5 reps of 100 seeds each (in grams).

.865 .861 _____
_____ _____

TOTAL of ALL Reps: _____
Average: _____

Difference between max & Min wt. _____ 10% of average _____

NOTE: Seeds/Pound = 453600 / 1000 seed wt. (453.6 grams = 1 pound)

To calculate M seed wt, take Total of 5 samples times 2.
2 x Total of 5 reps = 8.63 = 1000 seed wt.
Seeds per Pound = 52,500

✓ ok ID card needed
✓ 10M to PPMC .224# wt.

FINAL PACKAGING for Seed Storage/Transfer

	Bag Wt.		Bag Wt.
Bag # 1	.211	Bag #	
Bag # 2			
Bag # 3			
Bag # 4			
Bag # 5		Last Bag	
		TOTAL Wt.	.211

ENTERED

SEED TRANSFER Log Number _____

Date	Wt. Shipped	Ship via	Purpose Remarks

DATE	Start	Stop	Process	Initials
1/28/09	1350		226-test	AC
		1430	2270-pkg	AC

✓ ok	ID card file sample
	Regional Office ID file

POSTED TO: Lot Completion Logbook ✓ Computer NMIS_____