

# **Aberdeen PMC Report of Activities 2006: Great Basin Native Plant Selection and Increase Project**

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# Production of Certified Generation 1 (G1) Seed

- Maple Grove Germplasm Lewis Flax
- Anatone Germplasm Bluebunch  
Wheatgrass
- Snake River Plains Germplasm Fourwing  
Saltbush
- Northern Cold Desert Germplasm  
Winterfat

# Maple Grove

	2005	2006
Acres in production	3.2	6.4
Lbs. produced	31	300
Lbs. shipped	280	60







# Anatone

	2005	2006
Acres in production	5.6	5.6
Lbs. produced	976	1090
Lbs. shipped	250	350

# Snake River Plains

	2005	2006
Acres in production	.45	.45
Lbs. produced	47	20
Lbs. shipped	16	0





# Northern Cold Desert



	2005	2006
Acres in production	.45	.45
Lbs. produced	13	11
Lbs. shipped	20	5

# Forb Seed Increase

- Sulphurflower Buckwheat
- Hotrock Penstemon
- Sharpleaf Penstemon
- Sagebrush Penstemon
- Fernleaf Biscuitroot
- Gray's Biscuitroot
- Nineleaf Biscuitroot

- Feb 2005- Planted in GH after 10 wk stratification
  - ERUM 1500
  - PEDE 750
  - PESP 70
- June-August 2005- Transplanted to increase field w/ weed barrier fabric 9"x9" spacing
- November 2005- Dormant fall seeding
- 2006- First harvest (from x-planted materials)





Sulphurflower buckwheat

*Eriogonum umbellatum*

# ERUM

- ERUM 10/26/06; 812/2000 = 40% (includes xplants and seeded plants).
  - Transplants have crowns about 8-12"; seedlings around 4-6".
  - In the seeded areas are patches of good establishment and patches of poor. May be the result of two people seeding differently.
- Pressure from dandelions and annual weeds
- 31.76 g seed harvested '06



Fernleaf biscuitroot  
*Lomatium dissectum*



Gray's Biscuitroot  
*Lomatium grayi*



Nineleaf biscuitroot  
*Lomatium triternatum*





# Lomatiums

- **LODI- 580/2000 seedlings = 29%.**
  - Some patches of very good germ and some of poor germ. Possible differences between planting depth or number of seeds planted between planters?
- **LOGR- 1366/2000 = 68%.**
- **LOTR- 1409/2000 = 70%.**
- **Aug 06 no plants appear to be living**
  - Possible dormancy
  - Leave alone till next year
- **No seed produced**

Sharpleaf penstemon  
*Penstemon acuminatus*



Sagebrush penstemon  
*Penstemon speciosus*



Hot-rock penstemon  
*Penstemon deustus*



# Penstemons

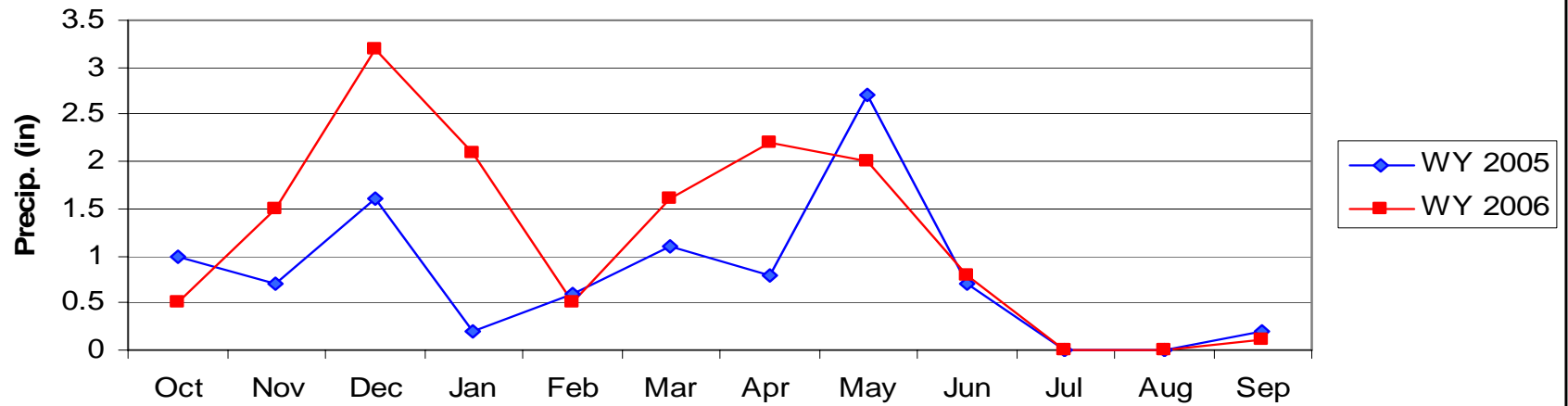
- PEDE; 111/192 (58%) from seeding; transplants have filled in to where holes can't be counted. Mature crowns 16", seedling crowns 8-10". Collected 2.6 lb clean seed.
- PEAC; 185/272 (68%) from seeding; 344/392 (88%) from transplants. Mature crowns 8-10", seedling crowns 6-8". Collected 3.0 lb seed.
- PESP; 352/584 (60%) from seeding; 46/68 (68%) from transplants. Mature crowns 6", seedling crowns 4+ ". No seed collected.



# Orchard Display Nursery

- 82 accessions of 27 native and introduced species
- Burned '02; sprayed w/Roundup/2, 4-D mix in May '03 and May '04.
- Planted November 2004
- 2005 9.6" precip.

### Monthly precipitation at Orchard Range Test Site



## Top 10 plant densities 2006

<b>Species</b>	<b>Plants/ft<sup>2</sup></b>
Ephraim Crested WG	1.23
Nordan Crested WG	1.10
P-12 Bluebunch	1.04
Wahluke Bluebunch	1.02
Jim Creek Bluebunch	1.02
Anatone Bluebunch	0.80
P-7 Bluebunch	0.67
P-24 (Columbia) Bluebunch	0.84
Secar Snake River WG	0.76
SERDP Snake River	0.67



P-24 (Columbia)  
bluebunch  
wheatgrass, June  
2006





# Crested Wheatgrass Diversification Project



# Crested Wheatgrass Diversification

- BYU & ARS (Burns, OR)
- PMC
  - Prepared seed/rice hull mixtures
  - Made modifications to Truax Roughrider Range Drill
  - Seeded sites in UT and OR (2005, 2006)

# Planting

Drill Mix		Broadcast Mix	
	PLS		PLS
Species	lb/ac	Species	lb/ac
Bluebunch wheatgrass	3.00	Sandberg bluegrass	0.75
Squirreltail	2.00	Rabbitbrush	0.25
Indian ricegrass	2.00	Wyoming big sagebrush	0.20
Fourwing saltbush	1.00	Yarrow	0.20
Blue flax*	0.75		
Munroe globemallow	0.50		
<b>Total</b>	<b>9.25</b>		<b>1.40</b>

\* non-native



# Truax Roughrider Drill Modification







Agitator - Cones

Seats

Smooth Tubes

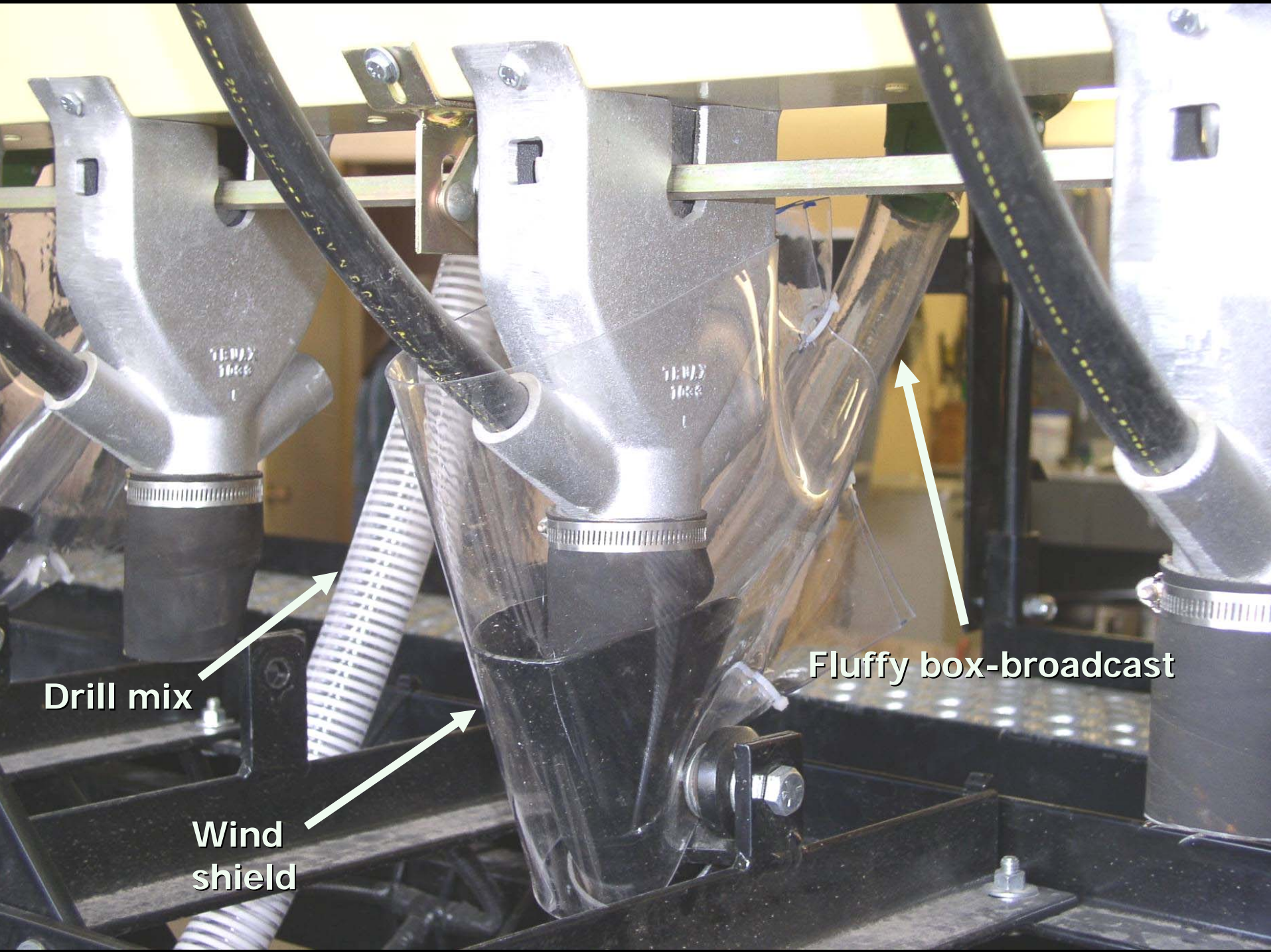
Calibration  
Priming

Generator

Vacuum

Press Wheel  
Adjustment





Drill mix

Wind shield

Fluffy box-broadcast

# Other modifications

- New drop boots
  - Less plowing
  - Less seed hang-up
- Drag chains
  - Better seed coverage



# Acknowledgments

- **Great Basin Restoration Initiative (BLM)**
- **Rocky Mountain Research Station (USFS)**

