

# **Seeds of Success Progress Report**

## **December 2012**

### **Main activities during 2012 growing season included:**

- New field and box garden plantings
- Field and box garden plantings maintenance
- Cleaning of 2012 seed collections and seed increases

### **New field and box garden plantings**

BLM (Bureau of Land Management) representatives selected the following species for seed increase in 2012:

*Trisetum spicatum* AK 930-389

*Agrostis scabra* AK 930-390

*Chamerion latifolium* AK 930-391

*Artemisia arctica* AK 930-448

*Deschampsia cespitosa* AK 930-452

*Leymus mollis* AK 930-456

*Calamagrostis canadensis* AK 930-457

Germination tests were conducted to determine the germination potential of the seed lots. Seed was seeded in the greenhouse in the beginning of April. In early June seedlings were taken outside to harden. All species were planted in their permanent location by first week of July.



Fig.1 *Calamagrostis canadensis* seedlings in the greenhouse



Fig.2 *Chamerion latifolium* seedlings in the greenhouse



Fig. 3 *Calamagrostis canadensis* just transplanted in the field



Fig. 4 Same planting month and a half later.



Fig. 5 *Chamerion latifolium* in the box garden



Fig. 6 *Artemisia arctica* in the box garden



Fig. 6 *C. latifolium* in bloom



Fig. 7 *A. arctica* couple of weeks later

*C. latifolium* has very short seed recovery period and produced seed in the summer that was transplanted.

Soil mix in the box garden was adjusted to mirror the growing condition in which this species grow in nature.

### **Field and box garden plantings maintenance**

Field and box garden plantings required regular maintenance. Weed management schedule was implemented. Plantings were fertilized in the beginning of the season.

### **Cleaning of 2012 seed collections and seed increases**

During 2012, BLM staff obtained forty seed collections. Seed was brought to the PMC (Plant Materials Center) where it was cleaned. Number of seed per gram and the approximate number of seed in the seed lot was calculated. Total weight of the clean seed exceeds four pounds.

Out of these collections 10000 seeds of each seed lot will be send to the Plant Introduction Station in Pullman, WA and the rest will be kept at the PMC.

Four seed lots were selected for seed increase in 2013:

*Calamagrostis prupurascens* AK930-463

*Arctagrostis latifolia* AK930-465

*Bromus inermis* AK930-480

*Festuca rubra* AK930- 497

Seed was harvested form plantings established in 2011. Following amounts of clean seed were obtained:

<i>Carex mertensii</i>	AK 930-62	26g
<i>Chamerion latifolium</i>	AK930-71	46g
<i>Oxytropis campestris</i>	AK 930-76	50g
<i>Snaguisorba canadensis</i>	AK930-81	6.6g
<i>Wilhelmsia physodes</i>	AK 930-85	20g
<i>Achillea sibirica</i>	AK930-89	96g
<i>Poa alpina</i>	AK 930-92	920g
<i>Hedysarum alpinum</i>	AK930-95	122g
<i>Chamerion latifolium</i>	AK 930-391	7.3g



