

Seeds of Success Progress Report

September 2015

Main activities during 2015 growing season included:

- Growing plugs for field seed increase and on site revegetation
- Maintenance of existing plantings
- Seed harvest
- Seed cleaning

Growing plugs for field seed increase and on site revegetation

Following species were selected for seed increase in the field this spring:

Beckmannia syzigachne AK930-621

Trisetum spicatum AK930-636

Festuca saximontana AK930-615

Nine hundred plugs were planted in March in the greenhouse. By May young plants were well established and in June they were transplanted in the field. Due to very warm weather and irrigation, plants grew fast and some of them set seed which was harvested in the fall. For example, *Beckmannia syzigachne* transplanted in May produced large amount of seed by the end of the summer.



Fig. 1. *Beckmannia syzigachne* with numerous seed heads

Over seven hundred additional plugs were grown to be used in on site revegetation project. This species are:

Carex athrostachya AK930-631

Carex bonanzensis AK930-628

Carex utriculata AK930-638

Carex saxatilis AK930-622 and AK930-627

Juncus arcticus AK930-629

These plugs were started at the end of January because they required a month long pre chill to overcome dormancy, which is usual for *Carex* and *Juncus*. By the time plants were transported to the site they were very well rooted and ready to be put in the ground.



Fig. 2. *Carex* sp. ready to be transplanted on site.

Maintenance of existing plantings

Most of the species planted previous summer overwintered successfully. Even with very little snow cover winter damage wasn't observed. Seed from these plantings was harvested for first time in 2015. The only specie that didn't produce any seed was *Fesuca altaica* AK930-105+165.



Fig. 2. *Festuca altaica*



Fig. 3. *Arctagrostis latifolia*

Weed management program was implemented for the last few seasons. It included mechanical and chemical methods.

Field plantings were fertilized in the beginning of the season and irrigated during the season.

Seed Harvest

Seed from the following species was harvested from field increase plots and box garden:

Festuca rubra AK930-497

Deschampsia cespitosa AK930-452

Deschampsia cespitosa AK930-159

Trisetum spicatum AK930-204

Leymus mollis AK930-456

Poa alpina AK930-162

Calamagrostis canadensis AK930-457

Bromus inermis AK930-480

Beckmannia syzigachne AK930-621

Arctagrostis latifolia AK930-165

Arctagrostis latifolia AK930-465

Arctagrostis latifolia AK930-527

Chamerion latifolium AK930-391

Hedysarum alpinum AK930-522

Hedysarum alpinum AK930-95

Seed cleaning

During 2015 field season, BLM staff obtained sixty six seed collections. They were brought to the Plant Materials Center (PMC) where they will be cleaned shortly. Number of seed per gram and the approximate number of seed in the seed lot will be calculated.

Out of these collections 10,000 seeds of each seed lot will be sent to the Plant Introduction Station in Pullman, WA. The rest will be kept at the PMC for future revegetation needs.