

Project Title: Seeding date and potassium fertilizer effects on winter canola survival

Project Leader: Heather Mason

Project personnel: Louise Strang, James Thompson

Project Objective: To evaluate the effects of seeding date and potassium (K) fertilizer on the overwintering ability and seed yield of winter canola in northwestern Montana.

Results:

Field trials were initiated in the fall of 2009. Two winter canola varieties were differing in winter hardiness rating (HyClass 107W and HyClass 110W) were sown at a target rate of 5 lb/a into soil measured to be deficient in K (55 ppm soil test K). Plots were seeded on 4 seeding dates: August 19, August 28, September 8 and September 22, 2009. Five levels (0, 20, 40, 80, 120 lb K/a) of K fertilizer (0-0-60) were broadcast and incorporated into the subplots prior to planting at each seeding date.

After seedling emergence, stands continued to grow until the first killing frost (October 6, 2009). At that time, winter canola plants at the first three seeding dates were well established, while plants in the final seeding date had barely emerged. Plant stand, leaf stage and dry weight decreasingly corresponded with delayed seeding dates.

In the spring of 2010, plants resumed growth, although survival looked patchy. Several hard spring frosts damaged the growing crops and they were terminated in mid-May 2010.

Future Plans:

The trial will be seeded again in the fall of 2010 and again in 2011 if overwintering in 2010 is successful.

Project Title: National winter canola variety evaluation

Project Leader: Heather Mason

Project personnel: Louise Strang, James Thompson

Project Objective: To evaluate the winter survival, seed yield and agronomic traits of winter canola varieties in northwestern Montana.

Results:

Eighteen winter canola varieties were planted on August 28, 2009. Stands established nicely and made it to the 4-6 leaf stage prior to the date of first frost, October 6, 2009. In spring, plots seemed to be emerging early on, but survival was variable across plots. A hard spring frost appeared to kill many of the young plants, thus the trial was deemed to be a crop failure and was terminated in mid-May 2010.

Future Plans:

The National Winter Canola Variety Evaluations will be continued, but fewer entries will be included until we start to see some success with winter survival in this crop.