

Tips for Galega cultivation

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Galega, also called oriental goat's rue, is a perennial forage legume from the Scandinavian countries. It outperformed alfalfa in forage dry matter yield, feed quality, dandelion suppression, winter hardiness and persistence in multi years research at the Thunder Bay Agricultural Research Station (TBARS) Thunder Bay (www.tbars.net). This note lists the tips for its successful cultivation.

Field selection: Galega performs best on deep, loamy and well drained friable soils though it could be grown on a wide variety of soils. We had Galega flourishing well in our slightly acidic to neutral tile drained soils at TBARS. Prefer fields that were under spring cereals in the previous years. Weed competition to Galega is much less in such fields than some other crops manured heavily.

Variety: Gale, released jointly by Estonian and Russian plant breeders, is the only variety of Galega in cultivation since 1837. Its seed will be available at Thunder Bay Feeds, Thunder Bay (info@thunderbayfeeds.com; 807-935-2921) in March 2017.

Seeding: Galega should be direct seeded with good seed to soil contact @ 25 kg seed/ha. Though a higher seed rate of 35 kg/ha could pay in the long run (fields intended to be kept under the crop for more than 5-6 years!). *Don't compromise on the seed rate!* Even 5 kg/ha reduction in the seed rate (from 25 kg seed/ha) could lower the dry matter yield significantly. Seed as early as possible in the spring at 6-12 mm on clay and loam soils, and 12-18 mm on sandy soils. We have successfully grown Galega without seed inoculation. However, if the inoculant (*Rhizobium galegae*) is available, it is advisable to inoculate the seed before seeding. Galega should be grown alone without any companion crop, because in the establishment year it can't compete very well with other plants (including weeds); especially at early stages of its growth.

Fertilizers application: Follow soil test based recommendations for P and K (same as for alfalfa) at seeding. In addition, apply 45 kg N/ha (20 kg of which should come from ammonium sulphate in the first year and the rest from urea) and 1 kg Boron/ha. From the second year onwards, increase the proportion of N from ammonium sulphate to 30 kg N/ha (out of total 45 kg N/ha). Ammonium sulphate will take care of S requirements of Galega.

Weed control: Galega's ability to compete with weeds could be low at early establishment, which improves with the canopy development. No herbicide is recommended for weed control in Galega. Use preventive measures such as seeding @ 25-35 kg/ha in the fields that had spring cereals in the previous year and by avoiding seeding in heavily manured fields. Remember manure could carry weed seeds. Galega is very competitive from second year onwards and can smother weeds.

Harvesting: Due to its relatively early start in the spring, Galega is ready for harvesting a week before alfalfa; when a few flowers are seen blooming (usually in the second week of June at Thunder Bay). It has better retention of leaves after harvesting and drying for hay than alfalfa. It

can be harvested twice (for hay or silage) in northwestern Ontario and probably 3-4 times in eastern Canada. Dry matter yield spread was 55 % in the first cut and 45 % in the second cut (same as alfalfa). For proper crown development, harvesting is prohibited in the seeding year.

Adding Galega to your cropping systems will be economically rewarding and will be better for the livestock and the soils as well! Any questions?

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