# What's in your Operation Pollinator seed mix?

## Alsike clover



Alsike clover, a perennial, features pink and white flowers that appear similar to white clover. This flower provides abundant nectar and pollen and is attractive to a variety of bee species. Honey bees, bumble bees, and solitary bees are known to visit alsike clover for its nectar and pollen.

### Birdsfoot trefoil



Birdsfoot trefoil is a perennial with vibrant yellow flowers. Honey bees and bumble bees are the most common foragers on birdsfoot trefoil. Birdsfoot trefoil requires well-drained soils to thrive. It can be slow to establish, so controlling weed pressure through the introduction of a grass species, such as timothy, can be beneficial to fill in the seedbed instead of alternative weeds.

### Phacelia



Phacelia is an annual that features purple-blue flowers. It is well-known for being attractive to bees and provides both nectar and pollen. Phacelia blooms for a lengthy period during the summer, providing abundant forage. The pollen of phacelia is an excellent source of protein, which can benefit developing bee larvae.

## Red clover



Red clover, a perennial, is particularly attractive to bumble bees due to its nectar quality. By incorporating timely mowing, red clover can bloom multiple times throughout the season, supporting bumble bee colonies as they grow and develop.

## Timothy



Timothy is a fast-growing grass that provides quick ground cover to discourage weed establishment, while slower-growing plants, such as legumes, establish. Timothy also creates shelter and habitat for other beneficial insects, including predatory ground beetles, and ladybird beetles.

## Yellow and white sweet clover



Yellow and white sweet clover are attractive to a variety of bees. Mowing sweet clover after flowering has ended encourages re-growth, providing additional forage for pollinators later in the season.



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#### Benefits of this seed mix

One of the major benefits of the Operation Pollinator mixture is the provision of high-quality nutrition, including the protein-dense pollen of legumes which can aid in the development of bee larvae.

In addition to being diverse and nutritious for pollinators, this mixture delivers agronomic benefits. The legumes provide their own nitrogen by fixing it from the air while also providing some to their non-nitrogen-fixing neighbours.

This mix also provides food to micro-organisms that improve soil health. Many of these plants are used as cover crops and as green manure crops, protecting the land from soil erosion and adding organic matter to the soil. All of these plants (except timothy) are known to bloom for lengthy periods, and the perennials will continue to bloom throughout the season with good management practices.

Establishing perennial pollinator habitat also helps other beneficial insects which can enhance natural pest control in the crop.

## Inoculation for legumes

Legumes, including birdsfoot trefoil, red clover, alsike clover, and sweet clover, require rhizobium bacteria for inoculation. The seed mix has been pre-inoculated.

## Selecting and establishing an Operation Pollinator site

Areas on the farm that can benefit from an Operation Pollinator habitat include:

- Lower-productivity lands (not too saline or sensitive to drought)
- Areas adjacent to hedgerows and other ecologically sensitive areas (e.g.s. ponds, drainage ditches, other riparian areas)
- · Sites with decent drainage, adequate soil fertility and suitable sun exposure
- Cut-outs such as corners of fields

Enhance the benefits of floral plantings for pollinators with these maintenance practices:

- If possible, mow the perennial plants (such as red clover and alsike clover after flowering has finished to encourage re-growth and re-flowering
- If mowing is not possible, consider multiple plantings staggered throughout the season to ensure a constant supply of flowers for pollinators
- Mowing one-to-two months after planting will help reduce weed competition

Give the seed mix the best chance to establish by following these site preparation and seeding tips:

#### Site preparation:

- Mow the area. If vegetative residues are excessive, they should be removed
- Control weeds with a burn-down herbicide (with no residual soil activity)
- Some light tillage may be necessary to ensure an adequate seedbed and that the seed is in direct contact with the soil

#### Seeding:

- Seed the mix either with a broadcast spreader or drill (set to ½" deep or less)
- Seeding rate for this seed mix is 22 lb/ac (25 kg/ha)
- If broadcasting, set to half seeding rate 11 lb/ac (12.5 kg/ha) and decrease spreading width to half of normal to ensure good coverage

#### Site maintenance

- Irrigation may be beneficial but is not a requirement
- Fertilization is not required



