

# Seeding Native Grasses with Air Drills

Air drills are readily available and can be used successfully for establishing native grasses. However, when seeding native grasses, care should be taken to ensure the following are all achieved. Often, small modifications need to be made to air drills in order to successfully seed native grasses. If the air drill is incapable of accomplishing all the requirements listed below, an alternative seeding tool should be considered.

## Seed Metering

Using high quality seed that has been conditioned, scalped and debarbed will result in the most consistent seed delivery. Calibrate the drill following the manufacturer's guide, and check and recalibrate several times during the seeding operation.

Some air drills are manufactured with a seed tank agitator, which helps to prevent seed settling and bridging. Drills not fitted with an agitator can be modified or retrofitted. Prairie Agricultural Machinery Institute (PAMI) at Humboldt, Sask., has developed several prototypes of seed tank agitators. This information can be accessed on PAMI's website: [www.pami.ca](http://www.pami.ca) (Research Update # 733).

The use of a carrier is advised, to ensure uniform seed flow through the air delivery system. Air drills not fitted with a seed tank agitator will require a higher ratio of carrier to seed material.

- Carrier can be fertilizer, a light rate of a cereal grain, or inert flowable material.
- If using fertilizer as a carrier:
  - Use ammonium phosphate formulations.
  - Blend only enough seed and carrier to plant approximately 20 acres at a time.
  - Do not store seed blended with fertilizer.
  - Clean the seed tank and delivery system of all fertilizer residue immediately after use.
- A minimum carrier to seed ratio (by weight) of 1:1 is recommended.
- Diverse seed mixes and/or mixes containing awned, fluffy/chaffy, or warm season grass species generally require a higher carrier to seed ratio. Carrier to seed ratios as high as 6:1 may be required.
- Cereal grain carriers should not be seeded at a rate higher than 10 lb per acre.

## Seed Placement

Accurate and consistently shallow seed placement (heavy textured soils: ¼ to ½ inch; coarse textured soils: < ¼ inch) is required across the air drill and at each opener. Rule of thumb: depth setting should be made so that some seed is visible on the soil surface.

- Start with a well adjusted, level toolbar/machine.
- Check and adjust for seeding depth often, and recheck depth when seeding under variable soil conditions or when moving to a different field.
- Seed with disc type or narrow hoe-type openers less than two inches in width. Shovel openers are not recommended.
- Adjust fan speed low enough to deliver the seed, without 'blowing' seed out of the seed trench. A good starting point for the fan setting is the setting recommended for grasses in the manufacturer's operating manual.
- Keep travel speeds low (< 4.5 mph).

## On-row Packing

Air drills are manufactured with on-row packers which provide sufficient packing to ensure good seed to soil contact. Seed into a firm seedbed. Direct seeding into standing stubble ensures a firm seedbed and provides protection from erosion. If site has been tilled prior to seeding or in the previous year, ensure the seedbed is packed sufficiently.

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