Seed grower's
recommendations
2011

Seed production of timothy 'Grindstad'

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Seed grower's calendar, timothy 'Grindstad'

Sowing year

When	What to do
Establisment with cover crop	
Spring	Undersowing in an early and stiff cultivar of spring wheat or spring 2-row barley. As long as lodging is avoided, cover crop sowing rate and nitrogen rate can be the same as for ordinary barley or wheat crops without seed crop establishment. Sowing rate / row spacing of timothy: 3-5 kg/ha / 12-30 cm. Optimal sowing depth for timothy: 0.5-1.5 cm.
Timothy 1-2 leaves, weeds 2-4 leaves	Herbicides against broad-leaved weeds: Either (1) Ariane S (2.0-2.5 L/ha), (2) Starane XL (0.8-1.0 L/ha) or (3) Primus (0.05-0.1 L/ha).
Cover crop stem elongation/heading	Supplemental nitrogen input; application of fungicide, insecticide and plant growth regulator to cover crop.
August - September	Cover crop harvest as early as possible. Cover crop straw can be cut and returned. Leave as short stubble as possible, chop the straw and spread it evenly, spread the chaff, avoid loss of light kernels.
Shortly after cover crop harvest	If less than 500 timothy tillers per m^2: Autumn fertilization, 30 kg N/ha
Establishment in pure stand	
Spring /early summer	Prepare for seed crop with a row crop / fallow with thorough weed control
Not later than 10 Aug.	Sowing: Sowing rate / row spacing of timothy: 3-5 kg/ha / 12 – 30 cm. Incorporation of 30-40 kg N/ha into seedbed before sowing or surface application shortly after seedling emergence.
Timothy 1-2 leaves, weeds 2-4 leaves	Herbicides against broad-leaved weeds: Either (1) Ariane S (2.0-2.5 L/ha), (2) Starane XL (0.8-1.0 L/ha) or (3) Primus (0.05-0.1 L/ha).

Seed harvest years

When	What to do
Shortly before green-up, soil temp. 4-5°C	Spring fertilization, 50-75 kg N/ha, lowest rate in dense crops and on soils rich in organic matter. P and K inputs, and thus fertilizer type, should be determined from soil analyses.
Timothy 10 cm high.	Broad-leaved weed control if necessary: Either (1) Ariane S (3.0-4.0 L/ha), (2) Starane XL (1.2-1.5 L/ha), (3) Primus (0.10-0.15 L/ha) og (4) Express (1.5-2.0 tabl./ha). Ariane S should only be used only if temperature is higher than 10°C. If seed crop is well established and *Poa trivialis* is a problem: Use Hussar OD, 50-100 mL/ha + Renol (0.4-0.5 L/ha). Express and especially Hussar retards timothy, but the seed crop will usually recover.
Early stem elongation, usually mid-May, Z 31	Supplemental fertilizer, 0-40 kg N/ha, highest rate in crops that are open and have chlorophyll-readings (Yara-N-test values) less than 350.
Early stem elongation, usually mid-May, Z 31, only if growing condtions are conducive	Chemical plant growth regulation: Cycocel 750 (2-2.75 L/ha + adjuvant) or Moddus, 0.5-0.6 L/ha. Tank mix with pyretroid (e.g. Fastac 50 (0.4 L/ha) if eggs of timothy flies are found on more than 5% of tillers.
Between tiller elongatioin and flowering	Spray one of the fungicides Acanto Prima (0.8-1.5 kg/ha) or Stereo 312.5 EC (0.7-1.5 L/ha) if visible attack of *Drechslera* leaf spot or other diseases.
At heading	Second application of Moddus (0.3 L/ha) in years with high lodging pressure
No later than flowering	Hand weeding of *Rumex* sp., *Matricaria inodora* and other noxious weeds or weeds that are difficult to separate from timothy seed.
Last days of July / first days of August or First week of August	Swathing when seed moisture content (SMC) is 40-45%. Leave the windrow on a high stubble. Windrows are usually combined when SMC is down to 20% after one week's curing. Drum periphery speed: 20-23 m/s, concave clearance 8-12 mm front / 4-6 mm rear. Gentle direct combining when SMC is 30-35 %. Drum periphery speed 15 m/s, concave clearance 20-30 mm front / 10-15 mm rear. Second combining of straw after minimum 3 days windrow curing. Straw can either be baled off or cut and spread evenly. Stubble height should not exceed 10 cm.
Autumn	Autumn fertilization not necessary after seed harvest.