

Table 2. Summary of biofumigation recommendations for spring and summer windows

Description of operation or crop management input	Comments
Biofumigant selection	Select a high-sinigrin-content Indian mustard biofumigant, and/or a rocket variety high in gluconasturtiin or glucotropaeolin glucosinolates
Preparation of soil and drilling	Drill biofumigants, between mid-July and mid-August, to a depth of 2–3 cm
Seed rate	Use a 8–10 kg/ha seed rate
Nutrient inputs	Apply nitrogen at 100-150 kg/ha, and sulphate at 25-50 kg/ha
Herbicides	Generally not required. If weed burden is high, seek advice from a qualified agronomist
Irrigation	May be required for establishment, to prevent early senescence or ahead of incorporation if soils are below 50% of field capacity (target 25–75% of field capacity)
Timing of maceration and incorporation	Macerate at early to mid-flowering when brassica foliage is still succulent. The best crops should be 50 t/ha of fresh biomass or greater, probably at 1.2–2.0 m in height
Foliage maceration	Use a flail or haulm topper for maceration, fitted with blunt hammer or solid V-tines. Front-mount maceration implements where possible. Keep tractor forward speed as slow as practicable to reduce the bite length of the macerator. The aim is to produce biofumigant pulp
Incorporation of residues	Ideally, rear-mount a rotavator or spader. Other incorporation implements can be used, provided material is well mixed into the top 30 cm of soil and incorporated within 20–30 seconds of maceration. Seal the soil either by smear-roll, heavy flat roll, or by the hood of a rotavator
Planting the next crop in the rotation	Leave at least 2 weeks between incorporating a biofumigant and planting a new crop. This is to avoid phytotoxic effects in the new crop from biofumigant organic matter breakdown