

Establishing Arable Grass Margins (and controlling Sterile Brome)

Arable grass margins are areas from 1.5 - 3 meters between the main crop and the field boundary deliberately managed to (a) provide habitat for flora and farmland wildlife species, (b) add biodiversity value and ecosystem services, (c) protect water quality, and (d) most importantly, compete with problematic grass weeds like sterile brome, which are increasingly problematic along field boundaries and invading into fields.

Control of sterile brome in margins/hedges by total weed control or selective graminicides have controlled competitive species and allowed bromes to flourish rather than decreasing their incidence. Continuous mowing encourages seeding at lower levels. Teagasc Oak Park have demonstrated that a margin specifically sown with competitive perennial grasses when properly managed, provides competition for the sterile brome by preventing their regrowth, and therefore seed return.

General Specification

- Establish a 2 - 4 meter grass margin where brome is problematic.
- Sow 100 % cocksfoot (25 to 30 kg/ha) or seed mixture containing 50% Cocksfoot and 50 % Timothy (25 to 30 kg/ha).
- Excellent establishment in the first year is essential to ensure good control of bromes.
- The grass margin sown in late summer should be mown or mulched the following May and September to encourage tillering and prevent brome seeding. Ideally off takes should be removed.
- Fertilizers or lime are generally not needed for establishment/management.
- Avoid all pesticides applications, except spot treatment for noxious/invasive weeds. Care should be taken to protect the margins from herbicide drift.

Timothy



Cocksfoot





European Commission



June 2017
Thematic Issue 57
AES schemes:
impacts on the agricultural landscape

Science for Environment Policy

Grassy field margins provide additional biodiversity benefits by connecting habitats

Habitat fragmentation is a threat to biodiversity, especially in agricultural land where there are also many endangered species. Corridors between habitats are one way to counteract its effects. A study suggests that grassy field margins — established throughout Europe to improve water quality — could act as corridors. The study, which measured the effects of field margins on butterflies, concludes that agricultural schemes should include this corridor function.

Establishing and managing grass margins - Teagasc, Oak Park, 2016-2020

2016

Heavy sterile brome infestations along field margin



Cut and removed sterile brome before seed set in early June, 3m wide strip



Stale seedbed through July & August. Burn off regrowth prior to planting margin



2020

Established grass margin in June. Topping and remove grass in August/early September each year

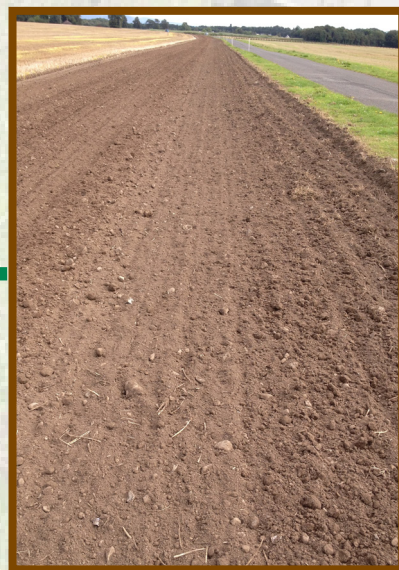


2017

Top (and remove off takes, optional) growth in the first year in May and again in August



Plough, till, sow to a fine seedbed in August



Enable Conservation Tillage- Project – July 2020



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