

# **Dock Control**

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Broad-leafed dock (*Rumex obtusifolius*) and Curled dock (*Rumex crispus*) are native UK plants. Once established they develop a deep tap root with forked branches. They spread by root fragments which helps them re- establish very quickly, and by seed which remains dormant in the soil for 60-70 years. Docks thrive in bare soil and open swards that typically occur in slurry systems, silage cutting, cattle grazing and non- competitive crops. Studies have shown that docks can have a big impact on grass yield; 5-10 plants per m² reduced ryegrass growth by up to 30% during the mid-summer months.

Docks (as well as thistles and common ragwort), are injurious weeds and are specified in the Weeds Act 1959. DEFRA has powers to serve clearance notices but will only do so where agricultural production is directly affected.

## Control requires a multi-pronged approach:

### **Prevent seeding**

- Cut silage leys before docks head estimates vary, but docks can produce up to 25,000 seeds a year
- Top grazing fields before docks flower



#### Reduce establishment

- Undersow a grass ley into a cereal crop
- Avoid crop drilling at peak dock germination (March/April and September/October) so consider crops like stubble turnips sown in mid-summer
- Take care with slurry applications to avoid sward damage and ensure an even spread
- Avoid poaching

#### Prevent plants maturing

- Control by intensive sheep grazing of young seedlings. Use on/off grazing to avoid sward damage; do not graze continuously
- Control by hand weeding

## Killing or weakening tap roots and seeds

- Compost manure thoroughly to kill dock seeds
- Repeated cultivation and dragging roots to the surface for desiccation may be an option in dry areas and for established docks. Attention to detail is needed not to make the problem worse!

## Fertiliser /nutrient management

• Docks thrive in soils rich in N, P and K. In one study, a lower application rate of K had little effect on grass production, but significantly reduced the occurrence of docks. High concentrations of calcium (Ca) and magnesium (Mg) in soil have also been linked to reduced dock numbers. Nutrient management planning may be tailored to reducing their numbers by rotating fields in silage production (which receive high potash from slurry) with fields being grazed and ensuring that fields are limed to recommended pH levels (pH 6.2).



## **Biological control**

Although biological control is not a common practice, research has shown that the naturally occurring green iridescent beetle (*Gastrophysa viridula*) and a rust fungus (*Uromyces rumicis*) can significantly affect dock growth, recovery and seed production. These beetles are often seen in large numbers during silage production.

**Heat and Electrophysical control** are other less well known approaches to dock control. Work is ongoing to investigate the effectiveness of these treatments as part of an EIP Wales project (Farming Connect - <u>Electrophysical Dock Control</u>).

#### Herbicide

A very effective approach in established grassland and should be applied when docks are actively growing at rosette stage 15 -20cm diameter. Suitable chemicals include MCPA, 2,4D, chlopyralid, fluroypyr and triclopyr. Always read the label and follow the guidance.

Further information: Dock Control (www.organicresearchcentre.com)

