

Weed Beet

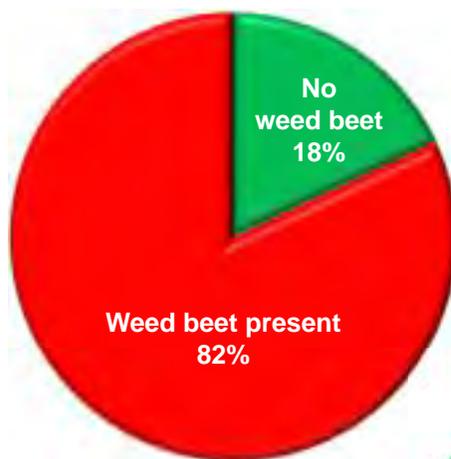
Key Points:

- ▶ Just one weed beet or bolter per square meter can reduce crop yields by 11% through shading and competition for water and nutrients.
- ▶ Weed beet host pests and diseases such as beet cyst nematode, rhizomania and downy mildew.
- ▶ On average 1,500 viable weed beet seeds are produced per weed beet plant.
- ▶ On a 70 t/ha crop where this intensity of beet weed and bolters have not been controlled the yield penalty is eight adjusted t/ha. Potential revenue lost £200/ha (2017 beet price at £22.00/t*)

* Beet price before any market bonus.

Current crop situation

Weed Beet Infestation



Weed Beet Control



Source of the sugar beet crop

(annual survey of 500 fields - 6% of UK crop 2016)

Weed beet and bolters compete with the crop for water, nutrients and sunlight.

Control costs increase rapidly with weed beet numbers and a control strategy should be in place prior to drilling.

Just one weed beet, bolter or tall weed per square metre can reduce crop yields by 11% through shading.

Seed which is ploughed in becomes dormant and can remain viable in the soil for twenty years or more.

Lengthening the rotation can reduce the numbers of weed beet present in sugar beet crops.

Details of weed beet contractors can be found at British Sugar Online (www.bsonline.co.uk).

Key stages of weed beet control

Pre-flowering



Open flower



At this stage weed beet and bolters should be pulled, have the stem broken close to the root and left on top of the crop to die.

Post-pollination



Maturing seed



After flowering, plants will potentially have set seed and should be removed from the field to prevent mature seed falling in the field.

Weed Beet

Weed beet control

Where a severe problem is expected, consider delaying drilling to allow weed beet to be controlled in a stale seedbed with a non-selective herbicide.

Choose a variety with a low bolting characteristic (particularly with early drilling), as uncontrolled bolters can produce large quantities of seed and reduce yield by shading.

Control methods:

Tractor hoeing

is most effective before the weed beet have more than four leaves, as the chance of resetting is reduced.

Hand pulling

is the most effective method of control, remove plants from the field if they have completed flowering - 'if in doubt, carry them out'.

Weed wiping

should be completed by the time roots are of a harvestable size to avoid rotten weed beet reaching the factory or causing contamination in storage.

Cutting

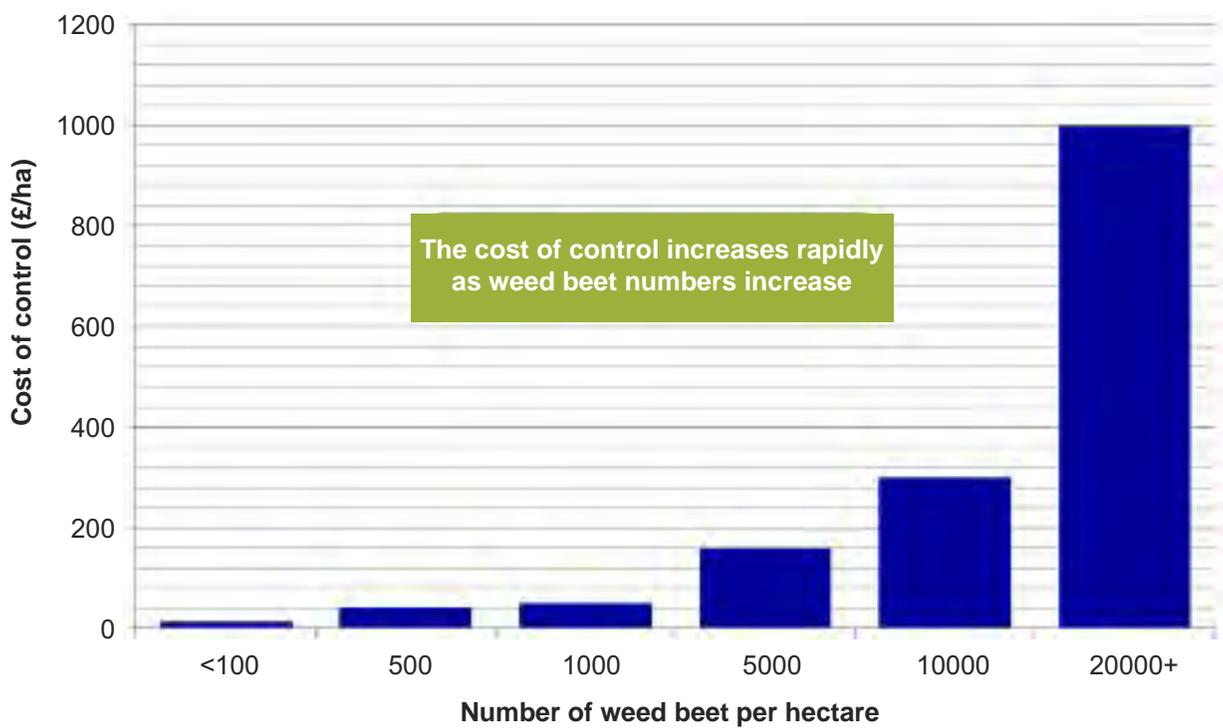
is the least effective method but the only real option where levels of weed beet and bolters are above 10,000/ha. If cutting is done using an efficient three cut programme, high levels of control can be achieved. Two cuts will be less effective.

When harvesting, aim to minimise losses, as crowns and whole roots left in the ground can flower and set seed in following crops.

Delay cultivations after harvest as around 60% of seed can be eaten by birds and mice.

REMEMBER
'if in doubt,
carry them out'

Post-emergence cost of controlling bolters and weed beet



Source - British Sugar Beet Review, Volume 68, No 4

