### **Technical Update**

#### Benta 480 SL March 2021



# Weed control in beans

- Beans suffer heavily from weed competition during their early stages of growth and early weed removal is essential to protect yield and quality.
- Benta 480 SL offers one of the only post-emergence solutions for broad-leaved weed control in spring and winter field beans, broad beans, dwarf French beans and runner beans as well as combining peas, vining peas, linseed, ornamental plant production and potatoes.
- Benta 480 SL offers the opportunity of a clean up of difficult weeds such as Cleavers and Black Nightshade as well as Volunteer OSR, Charlock, Chickweed, Fools Parsley, Redshank, Shepherd's Purse and Small Nettle.
- Best results will be achieved with Benta 480 SL when target weeds are small and actively
  growing. As a contact herbicide, good spray coverage is essential using 100 to 200 l/ha as a
  fine to medium droplet. The lower water volume of 100 l/ha should only be used when weeds
  are no larger than cotyledon stage, weed density is low to moderate and crop shielding is
  negligible.

#### Crop safety

- Do not apply BENTA 480 SL to any crop that may have been subjected to stress conditions, such as herbicide or disease injury, excessive acidity/alkalinity, trace element deficiency, drought, water logging, widely fluctuating temperatures, or physical damage to the foliage as caused by abnormal wind, rain, hail or frost.
- Do not spray under HOT SUNNY CONDITIONS when temperatures are at or above 21°C, particularly during the midday period. When the above conditions occur, spraying should be delayed until the evening. This is particularly important when there has been a change to hot sunny weather following a cool cloudy period.
- Crop selectivity is partly dependent on adequate leaf wax formation. Frost, wet conditions, physical damage, disease or previous sprays can all reduce leaf wax and when this occurs application should be delayed by at least 5 to 7 days to await recovery.
- Do not spray if rain or frost is expected, nor if the foliage is wet. <u>A minimum period of 6 hours</u> free from rain is required after application.

#### Sequences

- Do not apply insecticides within 7 days of treatment with BENTA 480 SL.
- BENTA 480 SL BEFORE a post-emergence grass herbicide: leave an interval of at least 7 days between treatments.
- BENTA 480 SL AFTER a post emergence grass herbicide: leave an interval of 14 days and carry out a leaf wax test where relevant.



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Crop	Application method	Rate I/ha	Crop stage	Weed stage
Spring Beans and Broad Beans* *Broad beans are more sensitive than field beans. The split dose treatment is always preferable to the single dose in this crop.	Split dose <sup>\$</sup>	1.0 l/ha + adjuvant followed by 1.0 l/ha + adjuvant	2 to 6 leaf pairs, max. height 15 cm Optimum crop stage is 5 to 10 cm	cotyledon to 2 leaves only. (optimum cotyledon)
	Single dose*	2.0 l/ha + adjuvant	3 to 6 leaf pairs, max. height 15 cm Broad Beans: 3 to 4 leaf pairs only. Optimum stage for both crops - as for split dose.	cotyledon to 6 leaves.
Winter Beans (applied in the spring)	Split dose	as spring beans	2 leaf pairs up to and including 7 leaf pair stage Optimum crop stage is 5 to 15 cm	cotyledon to 2 leaves only. (optimum cotyledon)
	Single dose	as spring beans	3 leaf pairs up to and including 7 leaf pair stage Optimum stage as for split dose	cotyledon to 6 leaves. (optimum 2 leaf)

<sup>\$</sup> If conditions are conducive to increased herbicide activity and crop scorch, e.g. warm sunny conditions, tender foliage or a more sensitive variety, then the split dose should be used.

- BENTA 480 SL can be applied either by a conventional single dose or by a split dose treatment.
- The single dose is usually the preferred treatment for the winter bean crop due to overwintered weeds being more advanced. The split dose is the preferred method in spring field beans provided that the weed and crop stage are suitable. Optimum timing for the first application is when the first flush of weeds are at the cotyledon stage. The second follow-up dose should be applied within 7 to 10 days of the first dose, depending on the control achieved by the initial dose or the appearance of the second weed flush.

#### Use with adjuvants

The following adjuvants have been shown to be safe up to the maximum rate of 2.0 l/ha of Benta 480 SL on field beans:

- Wetcit 0.5% of spray volume
- Methylated seed oil e.g. Phase II 0.5%, Toil 0.75% of spray volume

The addition of adjuvants may reduce crop safety so the guidance on application conditions should be strictly followed.

#### **Stewardship**

- Bentazone is prone to leaching into groundwater.
- Do not apply to shallow sands or gravel soils lacking in organic or clay content in high risk areas such as Drinking Water Groundwater Safeguard Zones for bentazone, and ground water source protection zones 1+2\_, or to water logged soils.
- Do not spray when heavy rain is likely within the next 7 days.

For more on bentazone stewardship head to Nufarm's sustainability page <u>www.nufarm.com/uk/stewardship</u>

Nufarm Technical updates are eligible for 1 BASIS CPT/year Ref: CP/100840/2021/g Email claim to <u>linda@basis-reg.co.uk</u>

Benta 480 SL contains bentazone Benta is a Sharda trademark Wetcit is a trademark of Oro Agri, Inc. Phase is a trademark of De Sangosse Ltd. Toil is a trademark of Interagro (UK) Ltd.

Details of application rates and timings are given in Nufarm labels and product literature; both of which can be accessed from our website www2.nufarm.com/uk. Alternatively, ring the Nufarm helpline on 01274 694714, Monday to Friday 9.00 - 17.00

Use plant protection products safely. Always read the label and product information before use. For label and safety information, refer to the Nufarm website <u>www2.nufarm.com/uk</u>. Nufarm UK Ltd, Wyke Lane, Wyke, Bradford, BDI2 9EJ.



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