

# MISSION 200SL as a Potato Desiccant

## Technical Update

August 2018

MISSION 200SL is a water soluble concentrate containing 200g/L of diquat as the bromide salt that can be used as a potato desiccant.

### MISSION 200SL Product Profile – For use in potatoes as a desiccant. (See label for information on other crops)

|                            |  |
|----------------------------|--|
| Maximum individual dose    | 4.0L/ha  |
| Split dose                 | 2.0L/ha followed by a second spray 2–5 days later  |
| Maximum total dose         | 4.0L/ha  |
| Latest time of application | No restriction but if potato tubers are to be stored, leave 14 days after treatment before lifting |
| Pack size                  | 10L  |
| Buffer zone                | None   |
| Water volume               | 200–500L/ha. Use higher volume when crop is dense  |

### Mode of Action

MISSION 200SL acts rapidly on green parts of plants and is rainfast in 15 minutes, diquat is rapidly inactivated when it comes into contact with the soil.

### Use of Mission 200 SL in dry conditions

This season all potato growing areas are drier than usual, although recent rainfall will have eased the problem. The amount of rain received has varied tremendously within short distances so checks **MUST** be carried out to see if **MISSION 200SL** can be used.

- Do not apply **MISSION 200SL** for potato haulm destruction when the soil is dry as tubers may be damaged if spray is applied during or shortly after dry periods.
  - Dry periods are defined as periods where soil moisture deficits, calculated by the MORECS scale are greater than 33–83mm according to soil and crop type.
  - The maximum soil moisture deficit for safe spraying is given in the table below.

| Soil Textural Group  | Crop Type         |               |                   |
|--|-------------------|---------------|-------------------|
|  | Ware <sup>2</sup> | Early or Seed | Canning           |
| Sands, very light soils, light soils, all stony soils (including stony medium and heavy soils) | 50 mm             | 33 mm         | <b>DO NOT USE</b> |
| Medium soils, heavy soils, (for stony soils see above)   | 66 mm             | 50 mm         | <b>DO NOT USE</b> |
| Organic soils (Over 10% OM), peaty soils, peats  | 83 mm             | 66 mm         | 50 mm             |

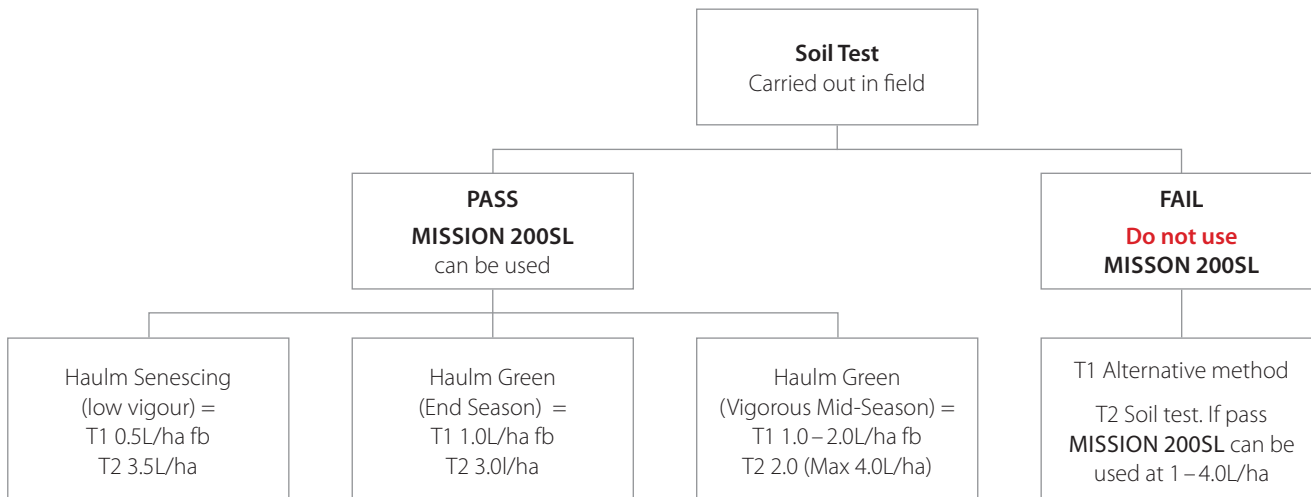
<sup>2</sup>If the crop is immature or the haulm is very vigorous at the time of spraying, use the figures in the Early or Seed column

- Adjuvants should not be used in conjunction with Mission 200 SL when it is applied as a desiccant.
- On medium, heavy and organic soils, crops may be sprayed if 13 mm of rain has fallen or the equivalent amount of irrigation has been applied in the previous five days and the soil around the tubers is moist and a soil moisture test is passed.
- On sands, light and stony soils, crops may be sprayed if 13 mm of rain has fallen or the equivalent amount of irrigation has been applied in the previous two days and the soil around the tubers is moist and a soil moisture test is passed.

**SOIL MOISTURE MUST BE ASSESSED IN THE FIELD PRIOR TO USING MISSION 200 SL** to ensure that the rainfall or irrigation has penetrated to below tuber depth. All parts of the field must comply with this requirement, so if soil types vary within the field ensure assessments are carried out for each soil type.

- Dig down with a spade and take a soil sample from the centre of the ridge 5 cm below the lowest tuber
- Gently squeeze the soil sample into a ball with one hand. If it is sufficiently moist the soil will remain as a ball. If the soil sample collapses then the test has failed and Mission 200SL should not be used.

**Guidance for the use of MISSION 200SL**



**Time of application of MISSION 200SL for potato desiccation**

- Apply when tubers have reached the desired size
- Best results are achieved by spraying in bright light under low humidity conditions
- When mist, light rain or heavy dew is present or imminent the risk of damage is increased.

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