

TECHNOTE

CALIBRATE SUSCON APPLICATORS ANNUALLY

In addition to correct placement of suSCon granules given the sugarcane grub species being targeted, applying the desired rate of suSCon is crucial in maximising performance of this unique controlled release technology.

With unavoidable wear and tear on application equipment, it is imperative that applicators are calibrated annually, prior to the application of suSCon to ensure continued operational efficiency.

WHAT TO LOOK FOR

1. Check cogs/flutes are in good operating condition i.e. worn cogs/flutes result in erratic application.
2. Check cogs/flutes are aligned consistently between the applicator boxes - variations between boxes can lead to significant differences in application - refer to Figures 1 and 2.
3. Check that bushes and washers at the end of the cogs/flutes are not worn, as this creates a gap between the cogs and brushes and results in an undesirable increase in granule flow and excessive application.

CALIBRATION STEPS

1. Measure 100m length of row - it is important to perform the calibration process under field conditions to account for wheel-slip.
2. Capture granules metered out per 100m row in a bag or jug.
3. Weigh each metered volume and make adjustments as required to achieve a consistent application rate of 150g per 100m row OR 225g per 100m row as per the suSCon Maxi Intel Directions for Use.



Figure 1



Figure 2



Rotating flute for Microband[®] applicator



Microband[®] applicator

Equipment must be set up to deliver an even band mixed with soil which is 2-3cm thick and 15-20cm wide.

For more information on suSCon Maxi Intel, contact your local Nufarm Area Sales Manager.

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Date: _____ Applicator Type: _____

Co-operator: _____ Mill Area: _____

Catch and weigh suSCon granules from both outlets of each applicator over 100 metres.

Determine the number of running metres in one hectare from the row width.

Multiply the weight of the granules in grams by the number of metres to the hectare and then divide by 100,000 (1000 to bring weight to kilograms and 100 due to the measurement over 100m).

Average the rate of all the applicators to determine **the measured rate per hectare.**

LEFT APPLICATOR	CENTRE APPLICATOR	RIGHT APPLICATOR
WEIGHT = _____ g $\frac{\text{_____ g}}{1000} \times \frac{\text{_____ m of row}}{100}$ = _____ kg/ha	WEIGHT = _____ g $\frac{\text{_____ g}}{1000} \times \frac{\text{_____ m of row}}{100}$ = _____ kg/ha	WEIGHT = _____ g $\frac{\text{_____ g}}{1000} \times \frac{\text{_____ m of row}}{100}$ = _____ kg/ha
To INCREASE application rate INCREASE the DRIVING cog or DECREASE the DRIVEN cog	MEASURED RATE AVERAGE ALL APPLICATORS _____ kg/ha	To DECREASE application rate DECREASE the DRIVING cog or INCREASE the DRIVEN cog

FORMULA TO ADJUST COG SIZE

FOR THE **DRIVING** COG

Number of teeth required = $\frac{\text{No. of teeth on existing cog ()} \times \text{required rate (kg)}}{\text{Measured rate (kg)}}$

Required size = $\frac{\text{_____} \times \text{_____ kg}}{\text{_____ kg}} = \text{_____}$

FOR THE **DRIVEN** COG

Number of teeth required = $\frac{\text{No. of teeth on existing cog ()} \times \text{required rate (kg)}}{\text{Required rate (kg)}}$

Required size = $\frac{\text{_____} \times \text{_____ kg}}{\text{_____ kg}} = \text{_____}$

ROW SPACING	METRES ROW/HA
4' 9" = 1.45m	6901m
4' 10" = 1.47m	6793m
5' 0" = 1.52m	6557m
5' 2" = 1.58m	6345m
5' 4" = 1.63m	6146m
1.5m	6667m