

# PLANTING AND MANAGING YOUR TISSUE CULTURE PLANTLETS IN THE FIELD

## PLANTING

Prepare soil to a fine tilth to ensure good soil/root contact. A seedling planter can be used if one is available, although hand planting small numbers is not a huge job. Plant them deep at the bottom of a drill to prevent stool tipping. Fill in after early growth. Plant the plantlets 500 mm to 1 m apart. A good distance is 800 mm which will allow stooling out to produce a high number of sticks.

## IRRIGATING

Provision of water is the most critical factor for successful establishment of tissue culture plantlets. So irrigate plantlets immediately after planting and monitor them to ensure they don't dry out over the first 3 weeks to get the roots well established. If you do not have access to flood or sprinkler irrigation a simple irrigation system can be set-up using cheap drip tape and an inline filter hooked up to your garden tap or water tanker.

## INSECTS

If you expect problems with insects then an application of an insecticide drench (such as chlorpyrifos or imidacloprid) at planting will protect the young plantlets. In cane grub-prone areas use your standard grub-control treatment.

## WEEDS

Weed control is important for good establishment and growth. Ideally pre-irrigate the soil to germinate weeds, then apply a knock-down herbicide or cultivate just prior to planting, this will reduce the weed pressure on young plantlets. Pre-emergent herbicides can be used. But do not use diuron, young plantlets are sensitive to diuron. Do not use paraquat unless you have no other option and only on established plantings. Established plantlets can be treated with the same chemicals as the ratoons on your farm. Label rates of S-metolachlor plus atrazine have been applied successfully over the top after planting. For example we used Atradex @ 2.5 kg/ha plus Dual Coal @ 1.5 L/ha for grasses and broadleaf weeds and also Sempra @ 100 g/ha plus Activator @ 200 mL/100 L for nutgrass. Both applications were sprayed over the top after planting.

## FERTILISER

Fertiliser requirements of the tissue cultured plantlets are the same as for your billet plantings. If possible, plant with a planter mix to maintain good early growth, and side-dress later to avoid fertiliser burn.



*Tissue culture plantlets.*



*Tissue culture in the field.*

## RELATED SRA FACT SHEETS

- Sugarcane tissue culture IS13034
- How to order sugarcane tissue culture IS13085

Copyright © 2025 • All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of SRA. **Disclaimer:** In this disclaimer a reference to 'we', 'us' or 'our' means SRA and our directors, officers, agents and employees. Although we do our best to present information that is correct and accurate, we make no warranties, guarantees or representations about the suitability, reliability, currency or accuracy of the information we present in this Information Sheet, for any purposes. Subject to any terms implied by law and which cannot be excluded, we accept no responsibility for any loss, damage, cost or expense incurred by you as a result of the use of, or reliance on, any materials and information appearing in this Information Sheet. You, the user, accept sole responsibility and risk associated with the use and results of the information appearing in this Information Sheet, and you agree that we will not be liable for any loss or damage whatsoever (including through negligence) arising out of, or in connection with the use of this Information Sheet. We recommend that you contact our staff before acting on any information provided in this Information Sheet. **Warning:** Our tests, inspections and recommendations should not be relied on without further, independent inquiries. They may not be accurate, complete or applicable for your particular needs for many reasons, including (for example) SRA being unaware of other matters relevant to individual crops, the analysis of unrepresentative samples or the influence of environmental, managerial or other factors on production.