

Annexure J: Stem end dip guideline

Avocado stem end dip at harvest guideline

20 May 2024

Objective

The primary goal of dipping avocados in the orchard is to minimise the risk of stem-end rot by applying an antifungal treatment soon after harvest.

Available products

Thiabendazole (benzimidazole solution) and Fludioxonil (phenylpyrrole).

Preparing the dip solution

Prepare the stem end dip solution according to the label instructions or recommended dosage rates. The concentration should be the same as indicated on the label for use in the packhouse.

- **Thiabendazole**

Dip treatment concentration: 400 ml/100 l water which is 40 ml/10 l water.

- **Fludioxonil (phenylpyrrole)**

Dip treatment concentration: 150 ml/100 l water which is 15 ml/10l water.

For example, if you were preparing the stock solution in a 20 litre that would be:

- 80 ml in 20 l of water for Thiabendazole
- 30 ml in 20 l of water for Fludioxonil

Picking and cutting

Avocados should be picked with long pedicels and just before dipping, the pedicels should be cut shorter (2- 3 cm) to ensure a clean cut and enhance the effectiveness of the dip treatment. A clean cut is essential for optimal treatment efficacy, as it exposes a fresh surface for the fungicide solution to penetrate. This helps maximise the contact between the treatment solution and the fruit.

Dipping Procedure

Immediately after cutting the pedicel to its final length, dip the stem ends (2-3 cm) of avocados into the treatment solution. Ensure complete immersion to cover the entire stem end of the avocado fruit with the fungicide solution.

As the solution in the dipping container gets depleted, top up from the stock solution container.

Suggested methods (observations from orchards):

1. Each picker can have a 1 litre bottle of stock solution which is poured in a smaller shallow dish to dip the fruit in. They take each fruit from their harvest bag, clip the pedicel, then dip the fruit in the solution before placing it in the lug or bin. They can keep refilling the shallow dish just enough until all the fruit in the bag has been dipped.

2. Containers with 'hooks' can be hooked on the bins with the dip solution. For instance, the container can be 3 litres (suggested size not compulsory) and the picker dips each fruit from their picking bag before putting it in the bin. The solution in the dipping container can be refilled with the stock solution when it gets to half to maintain a level that the pickers would not struggle to immerse stem end of the fruit.

Cleaning containers

Containers used for dipping should be cleaned regularly, at least once a day to prevent the build-up of grime that can affect fruit quality. Clean containers help maintain the effectiveness of the treatment solution and ensure the quality of the treated fruit.

Cleanup

Dispose of any leftover solution from the stock solution and dipping containers properly at the end of a picking shift. Clean all containers and equipment used in the dipping process to prevent contamination. A new solution should be mixed every day. To minimise wastage, mix just enough stock solution for one day. If more is needed it can be mixed while harvesting.