

## Deeper Polybags

The coffee seedlings that grow in deep polybags (28 x 18 cm) are called jumbo seedlings in Brazil. Previously deeper polybags were used only for replanting and replacing coffee plants that did not survive the planting period in the field. Currently, some farmers choose the jumbo seedlings because they have a larger volume of roots, which increases the percentage survival against adverse factors in the field. In order to produce these big seedlings, the seeds must be allocated to the nursery or greenhouse in the month of January and then to be taken for the final field planting between November and December; that is, eleven months after the polybag is sown.

### Threats



Prolonged drought



Temperature increase

### Impacts



Crop mortality



Decrease in productivity



Harvest loss

## Steps



*Deeper Polybag Production in Greenhouse*



*Difference between polybags and roots of the big and small seedling*



*Big seedlings set out in the field*

## Step by Step

- 1 The big seedlings must come from a certified nursery.
- 2 In the nursery, big seedlings are prepared with certified seeds and stored in a cold chamber. The seed is placed in the polybag in the month of January. Later, the seedlings adapt to the full sunlight exposure and are planted at the beginning of the rainy season, between November and December.
- 3 By the time the seedlings are planted out in the field, generally it already presents the first pair of lateral (plagiotropic) branches.
- 4 The big seedling must be planted in 40<sup>3</sup> 40x40x40 cm pits and fertilized following technical recommendations, according to soil analysis results.
- 5 Once established, the plant has quick growth, so it is recommended to perform the replanting in case of mortality in the rainy season.
- 6 The planting established in November will start its first production cycle in the month of June of the next year; after the first cycle is complete, the cultivation produces its first small harvest (until 1½ litter per coffee plant).

The c&c team have shown that by using the big seedlings survival in the field increases, reducing the need for replanting. These plants establish themselves very well, coping well with extreme climatic events, such as a drought. The cultivation starts to produce when the first harvest is complete, anticipating one year in comparison to the conventional seedling.