Banana Sucker Pruning Manual

Janet Conie and Marina Young

Research Department, Banana Export Company (Jamaica)
European Union Banana Support Programme

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1. BACKGROUND .................................................................1
   What is Sucker Pruning? .................................................1
   Why is Pruning so important? ........................................1
   Types of suckers ..........................................................2
   What is the objective of Pruning? ....................................3
   What is the Banana Production Unit? ...............................4

2. CORRECT PROCEDURES FOR SUCKER-PRUNING .........7

3. SOME COMMON PRUNING SITUATIONS .........................14
In situations where pruning of the first flush is late, they (first flush suckers) must be identified and removed. One desirable peeper from the second flush with ring must be selected by pruning out all others. Do not make the mistake of labelling all the suckers as first and therefore removing them all.

In cases where there is more than one desirable peeper the best one must be selected. However where possible, suckers below the bunch should be avoided (Figure 17a). Suckers nearest to drip irrigation lines are preferred (Figures 17b).

*Sucker training is the practice of tying suckers to the trunk of mother plant and away from the bunch to prevent leaves from scarring the bunch.

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WHAT IS SUCKER-PRUNING?

Sucker pruning is the routine removal of the unwanted small plants (suckers) from the banana mat at regular time intervals. The suckers that are chosen to remain are called “crop suckers”.

WHY IS PRUNING SO IMPORTANT?

- When unwanted suckers are not pruned, they use up expensive fertilizer, which makes less of the nutrients available to develop the bunch in the shortest possible time.
- Therefore, the bunch size and weight are small and the time period between harvests is long.
- Too many suckers make the fields over-crowded.
- Overcrowded fields has more moisture in the air, which makes the fungi that cause Sigatoka leaf spot, swamp spot, crown and fruit rots, and all diseases harder to control.
- In the end, lack of pruning increases the cost of production and lowers the yield.
STEP 6.

Mould the soil back around the mat to cover peepers and prevent water from settling (Figure 13).

Figure 13.

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Types of Suckers

(a) deep-seated sword sucker

(b) shallow-seated sword sucker

(c) water sucker
WHAT IS THE OBJECTIVE OF PRUNING?

The objective of the sucker-pruning operation is to select the next two in the sequence of crop plants in each mat. Selection is carried out in a manner to ensure that the shortest possible time passes between harvests from each mat, while still yielding the largest possible bunches.

Figure 1. Plant with eight-week old bunch and follower showing reasonable succession (plant height) of the next generation of crop.

STEP 4.

Remove unwanted suckers with pruning tool (Figure 9). An ordinary machete can be used also.

Figure 9.

i. Lift the sucker by pushing the tool below the sucker and raising the handle to loosen it from the soil (Figure 10a and b).

Figure 10a.

Figure 10b.

ii. Then separate the sucker from the mat by making a quick stab between the unwanted sucker and its parent (10a and b).

Figure 11a.

Figure 11b.

STEP 5.

Move discarded suckers away from the mat. Freshly cut plant material attracts borers and other insects. Chop up pruned suckers into small pieces for quick decay (Figure 12).

Figure 12
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WHAT IS THE BANANA PRODUCTION UNIT?
The production unit is a mat that has a **mother**, **follower** and a **peeper** plants in clear connected succession.

Figure 2. Diagram of the recommended production unit (mother, daughter and peeper attached)
Figure 3. Mat with mother, daughter and three peepers attached to the follower. One of the peepers must be selected at this stage.

Figure 4. Soil dug from around mat to expose unwanted suckers (tip of tiny finger) growing from below the mat. The index finger is pointing to the peeper (with enlarged clear coloured base called “crown” or ring) to be selected.

STEP 3. Identify unwanted suckers to be pruned away. Undesirable suckers come from below the mat with no identifiable ring or attachment to the follower (Figure 8a, b, c, d and e).

Figure 8a. Unwanted sucker (arrow) growing from below the mat. The knife tip is pointing to the sucker to be selected, which will grow at a much faster rate than suckers from below.

Figure 8b.

Figure 8c.

Figure 8d.

Figure 8e.
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Figure 7b. More distinct crown.

Figure 8a. Unwanted sucker (arrow) growing from below the mat. The knife tip is pointing to the sucker to be selected, which will grow at a much faster rate than suckers from below.

Figure 8b. Mat with peeper emerging from the follower, clearly seen above the soil in this picture. The larger undesirable sucker is in the foreground. Peepers are horizontal or angled and light in colour. Unwanted suckers usually appear more vertical (upright) and sometimes further from the follower than the correct selection.
2. CORRECT PROCEDURES FOR SUCKER PRUNING

Pruning of suckers must be carried out every 6 - 8 weeks. The shorter time interval is for faster growing fields.

STEP 1.

Dig away the soil at the base of the mat to show suckers or peepers (Figure 6). This must be done carefully to avoid damage to follower and peepers.

Figure 6.

STEP 2.

Select peeper with characteristic ring at the base. Figures 7a, b, c and d show ring in various stages of development.

Figure 7a. Tip of the knife is pointing to the emerging crown (ring), from which peeper will develop. To find crowns at this stage it is necessary to remove leaf bases from ground level of the follower.

Figure 7b. 

Figure 7c. Well-developed peeper.

Figure 7d. Peeper attached to the crown (tip of the knife), can be seen just by scratching away soil only. This is one of the earliest stages when crop suckers are clearly visible for selection.