

# Challenges facing coffee production



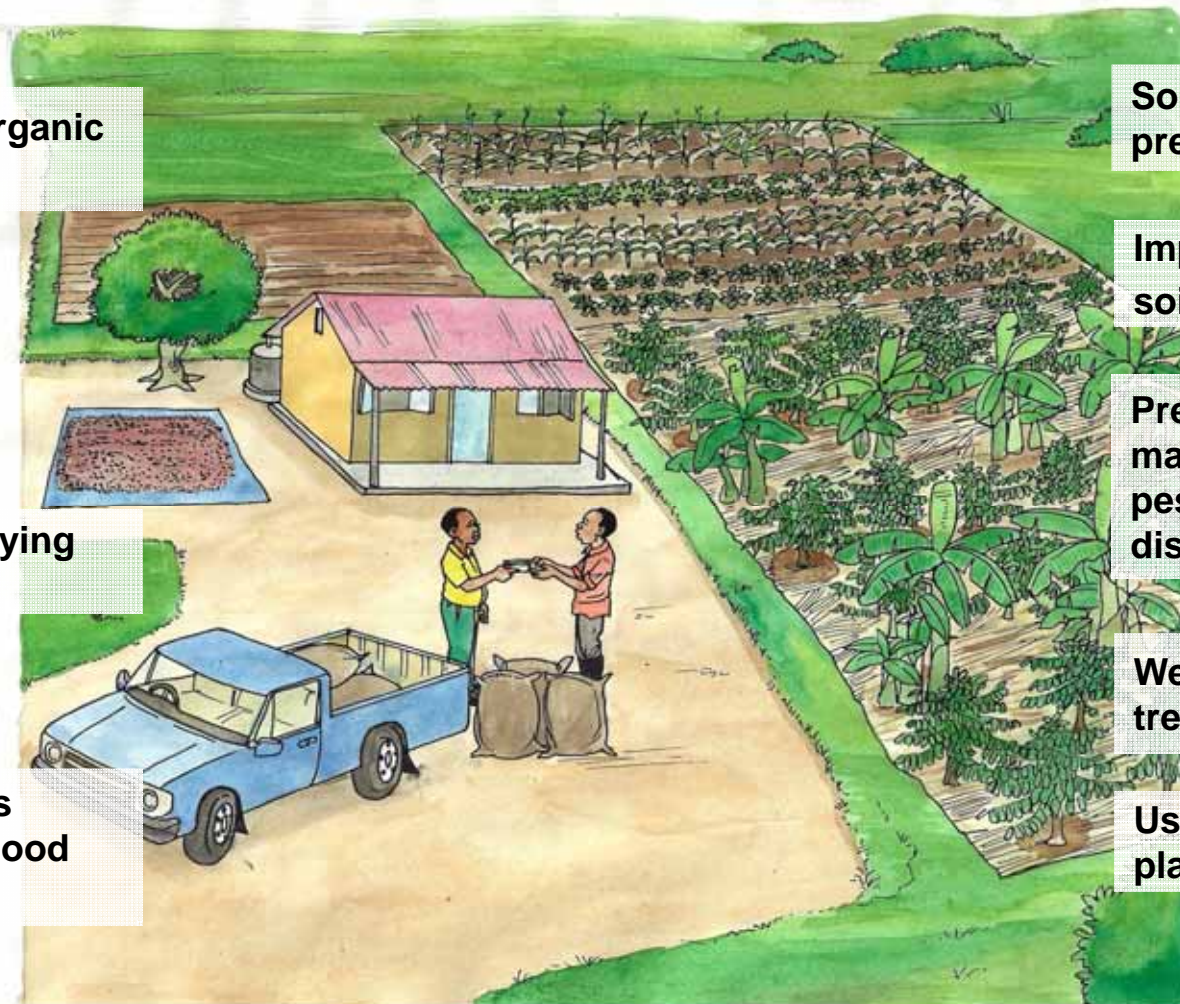


# Improved management of coffee

Access to organic market

Improved drying methods

Higher yields generating good income



Soil cover to prevent erosion

Improved soil fertility

Preventive management of pests and diseases

Well-managed trees

Use of high quality planting materials



# Proper production of coffee seedlings

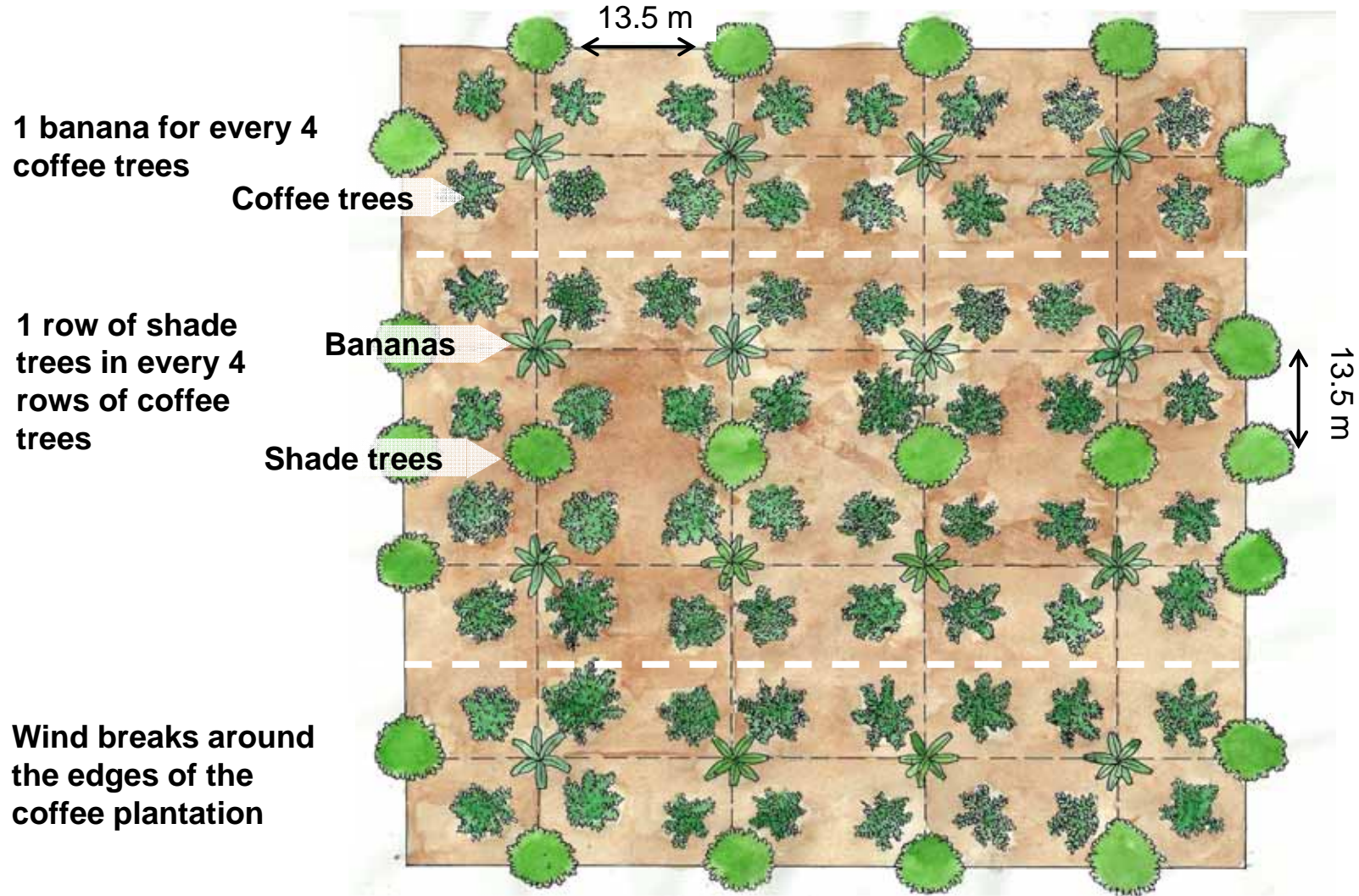


**Do not use undergrowths from fallen berries under the coffee trees as planting material!**





# How to arrange coffee trees and intercrops



1 banana for every 4 coffee trees

Coffee trees

1 row of shade trees in every 4 rows of coffee trees

Bananas

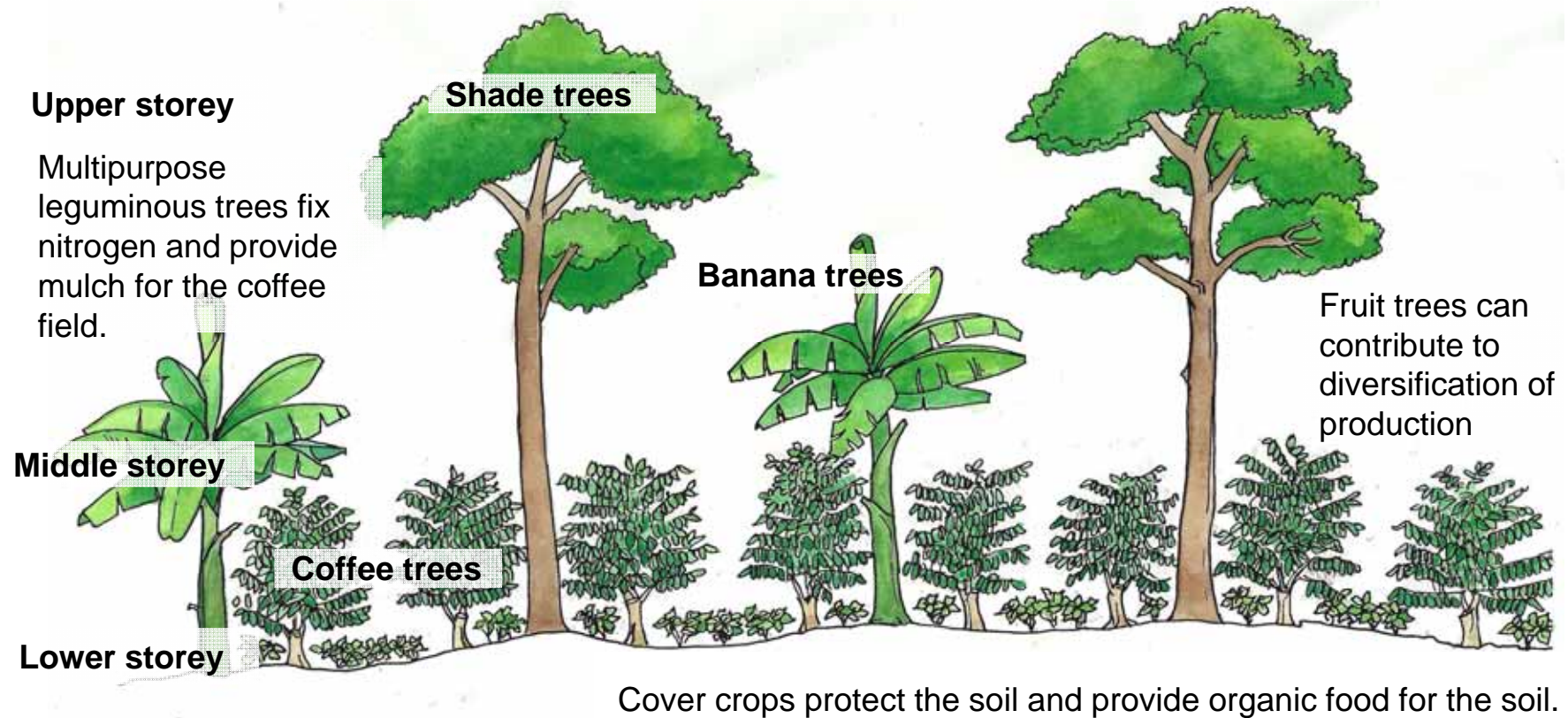
Shade trees

Wind breaks around the edges of the coffee plantation



# Growing coffee in an agroforestry system

Shade trees protect the coffee plants against strong sunlight, contribute to prevention of soil erosion and reduce moisture loss in the coffee garden.





# Proper planting of coffee seedlings



**1. Dig the planting hole 2 feet by 2 feet wide**



**2. Mix the topsoil with 1 basin of manure or compost**



**3. Plant the seedling**



**4. Create a small shade and lay out mulch around the seedling to keep the soil moist**



**5. Water the seedling regularly**



# Proper mulching of coffee seedlings





# Training of coffee seedlings

**Bend of the coffee plant allows for the formation of more stems and increases the tree's yield potential.**

## 1. Before



Bend the coffee plant, when it has reached a height of about 2 to 3 feet and fix it with a branch in a horizontal position.

## 2. Afterwards



After some time the coffee plant will have built more stems.





# Proper pruning of coffee

## How to prune:

### 1. Main pruning:

Limit the number of stems to 3 or 4

### 2. Tipping:

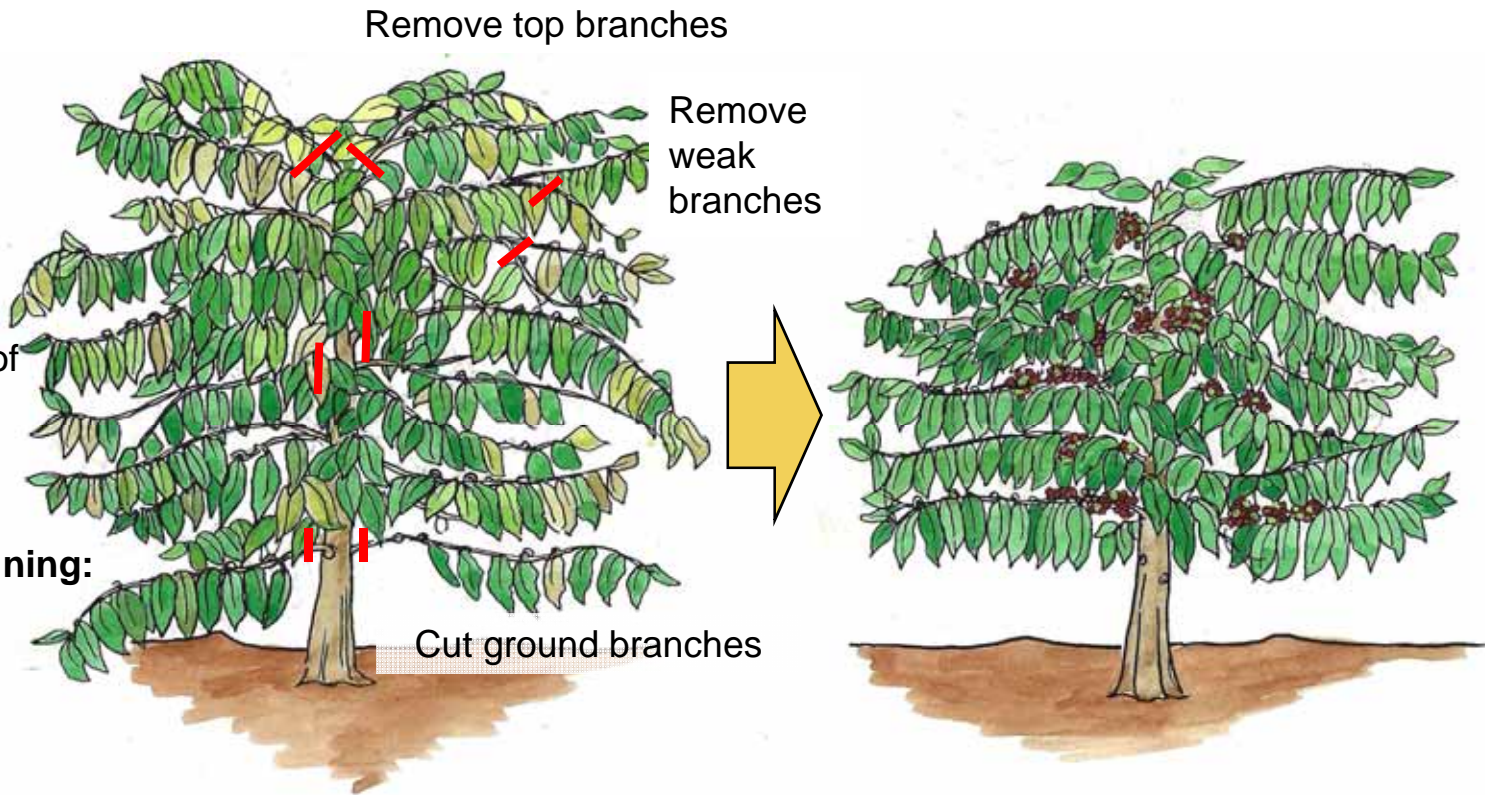
Cut at 7 feet high

### 3. Secondary pruning:

Cut secondary branches

### 4. De-suckering:

Remove suckers



## Before

Tall trees with many unproductive branches

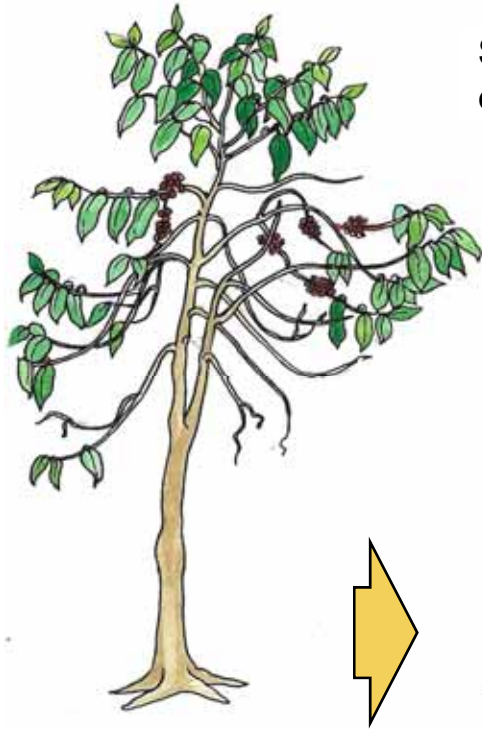
## After

Shorter trees with aerated crown and productive branches



# Stumping of old coffee stems

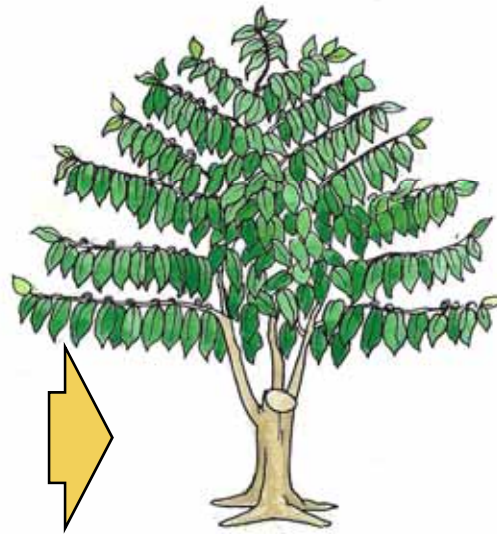
Stumping every 6 years increases average yield of coffee trees and eases harvesting of beans



Tall and unproductive plant with few and small beans



Cut the plant right back to the base, leaving 3 new buds to grow



**1 year later:** vigorous branches with many leaves



**2 years later:** bushy tree, many and big beans





# Water conservation trenches



Trenches along the hillside contour lines collect valuable topsoil and water.





# How to improve soil fertility in coffee

**1. Apply compost during planting and after harvest, as a top dressing**



**2. Cover the soil with mulch to preserve moisture and prevent erosion**



**3. Grow a leguminous cover crop or a green manure (in grown coffee) and cut it regularly**

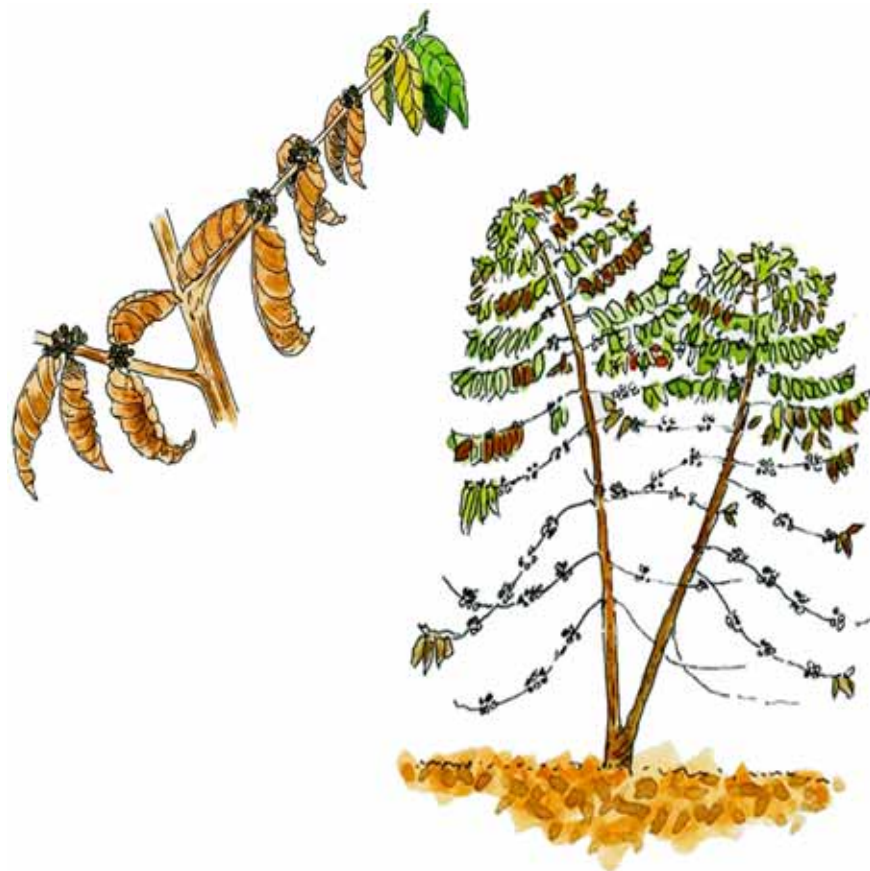


**4. Use the pruned branches from shade trees to cover the soil**





# Damage due to the coffee wilt disease and control measures



## Control measures:

- › Restrict the movement of coffee materials such as seedlings, beans and husks from affected areas.
- › Destroy all infected and adjacent plants preferably by burning them at the site without moving them.
- › Sterilise field tools that have been used on infected trees.
- › Where possible, use resistant varieties.



# Damage due to the coffee berry disease and control measures



## Control measures:

- › Use resistant varieties.
- › Ensure field crop hygiene by removing infected beans is also helpful.
- › Prune the coffee and shade trees properly.





# Wet processing of Arabica coffee

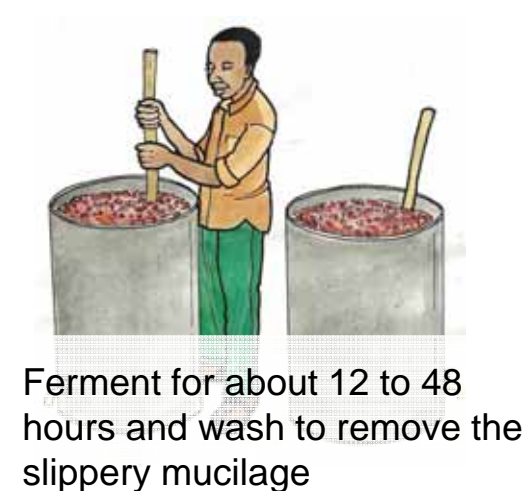
## 1. Timely harvesting



## 2. Immediate pulping



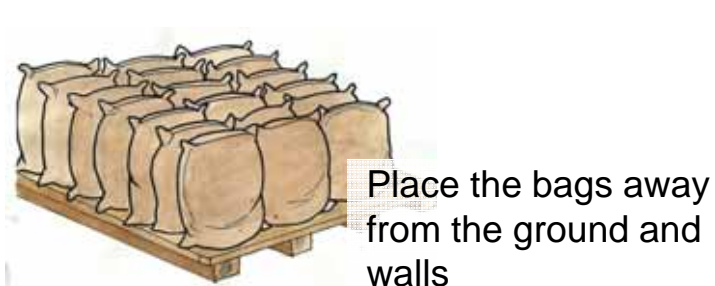
## 3. Fermenting and washing



## 4. Proper drying and sorting



## 5. Proper packing and storage

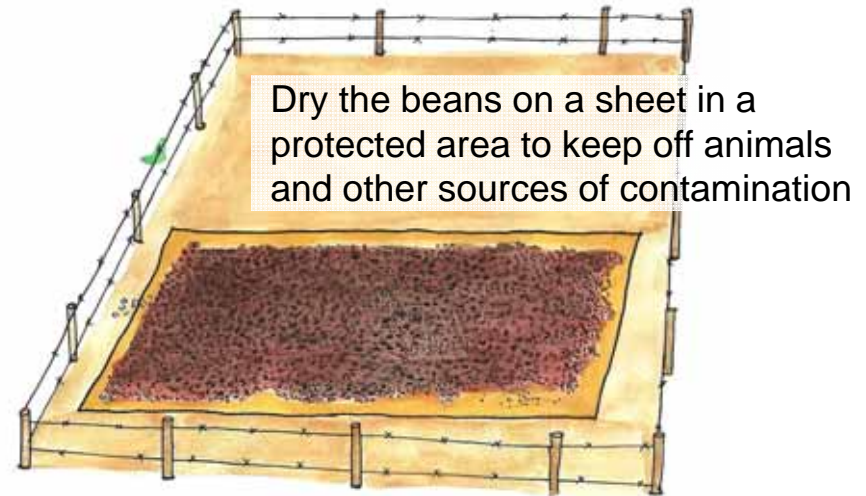


# Dry processing of Robusta coffee

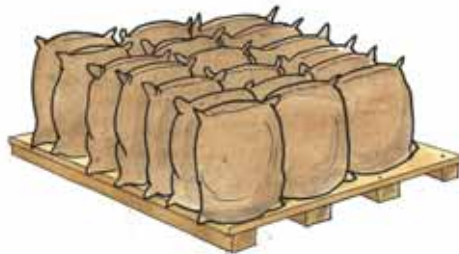
## 1. Timely harvesting



## 2. Proper drying



## 3. Proper packing and storage



Place the bags off the ground and walls

