



Rwanda Agronomy: Weed management

TOTAL TIME: 1hour 30 minutes

AUDIENCE: lead Farmers, Field officers and Cooperative staff

FACILITATOR: Farmer Trainer

LOCATION: Training plot and classroom

OBJECTIVES:

- **Objective 1:** Define what a weed is.
- **Objective 2:** Describe why weeding is important and where to weed.
- **Objective 3:** Identify common weeds, and distinguish between annual and perennial weeds.
- **Objective 4:** Identify when weeds should be controlled.
- **Objective 5:** Identify the most suitable methods for controlling weeds.

MATERIALS FOR WEEDING:

- Common weed species x 2 each
- Example of ideal weed size at weeding and weed that is too large.
- Hoe for weeding (in the Demonstration plot)

TIME	CONTENT OUTLINE
-	PREPARATIONS BEFORE THE TRAINING: • Collect four samples of different types of weeds. • The weeding exercise should be conducted in the demonstration plot. If the plot has already been weeded, identify another suitable area near the demonstration site. • Identify an area where poor weeding practices have caused damage to coffee trees near the training site in order to show an example. If such a site is not available, use photographs.
10 min	OPENING: ▪ Introduction ▪ Logistics ▪ Review Objectives ACTIVITY: Icebreaker a) Choose an icebreaker that is appropriate for your audience.

10
min

OBJECTIVE 1: Define what a weed is and the effect it has on coffee tree.

ASK: What is a weed?



ANSWER: A plant growing that is not wanted.

Activity: Good weeding and Bad Weeding

- Use photo or a coffee farm which is weeded and the other coffee farm which is not weeded. Discuss with farmers using the following questions.

ASK:

- What effects weeds can cause to a coffee tree?
- Coffee trees which are weeded and coffee trees which are not weeded
Which is healthier?

ANSWER:

- A coffee tree which is weeded is healthier.
- When coffee trees are not weeded, there is **competition of fertilizer and water** between weeds and coffee trees, and this will affect coffee yield and its quality.
- Weeds also can accommodate pests and diseases.

	
10 min	OBJECTIVE 2: Describe why weeding is important and where to weed. ASK: Why is weed control important in coffee? ANSWER: ▪ Weeds compete for resources: nutrients and water ▪ Poor weed control can lead to unhealthy trees and low yields. ASK: Where is the most important place to weed? ANSWER: ▪ Under the drip line ▪ The area beneath the tree is where the feeding roots of the coffee tree are located, and it is where the plant absorbs nutrients and water  Note to The Trainer: draw a line under the tree canopy on the soil in order to show farmers where the feeder roots end, remind also farmers that it's where we will apply fertilizer.
15 min	OBJECTIVE 3: Identify common weeds, and distinguish between annual and perennial weeds.



	ACTIVITY: Weed ID a) Set up 2 tables each with 1 example of 4 – 6 common weeds. b) In groups c) Ask each group to: - o Name each weed - o Decide if the weed is an annual or a perennial. Discuss findings Annual weed – lasts year or less. Perennial weed – lasts for many years, has some sort of food storage organ such as a tuber, runners.
10 min	OBJECTIVE 4: Identify when weeds should be controlled. ASK: When is the best time to weed? ANSWER: ▪ Before weeds get too big ▪ Before weeds can seed ▪ Before fertilizer is applied ▪ Before mulching ▪ When soil is wet ACTIVITY: Timing a) Show examples of weeds, 1 too big to weed and 1 that is the right size for weeding. b) ASK: Which is the right size for weeding? Why? Discuss.
20 min	OBJECTIVE 5: Identify the most suitable methods for controlling weeds. Controlling weeds: ▪ Using other agronomy best practices, mulching and shade ▪ Hand weeding under the drip-line, do not dig under the tree. This will disturb feeder roots! ▪ If NOT mulching, control weeds between the rows with slashing



	▪ If mulching, remove by digging. ▪ It is not good to have bare soil. This will lead to erosion. ▪ Chemical weeding: ○ Gramoxone: contact herbicide for annuals ○ Round-up: systemic herbicide for annuals and perennials ○ Both are very toxic. Safe use training and equipment required ACTIVITY: Hand Weeding (NOTE TO TRAINER: Demonstrate weeding before participants practice.) ▪ Go to the field. ▪ Ask each participant to select a tree with plenty of weeds and: ○ Hand pulls all the weeds under the drip-line. ○ Weed or slash between coffee rows. ▪ Review each participant's work providing feedback and guidance. ▪ Discuss.
15 min	CLOSING: ACTIVITY: Knowledge Check Ask participants the following questions: • What are some of the benefits of mulching? • When is the best time to mulch? • If you only have a small amount of mulch, how would use it? • How will you mulch if you have a lot of mulch? ▪ Next steps Immediately go to Record keeping lesson plan and Review objects.