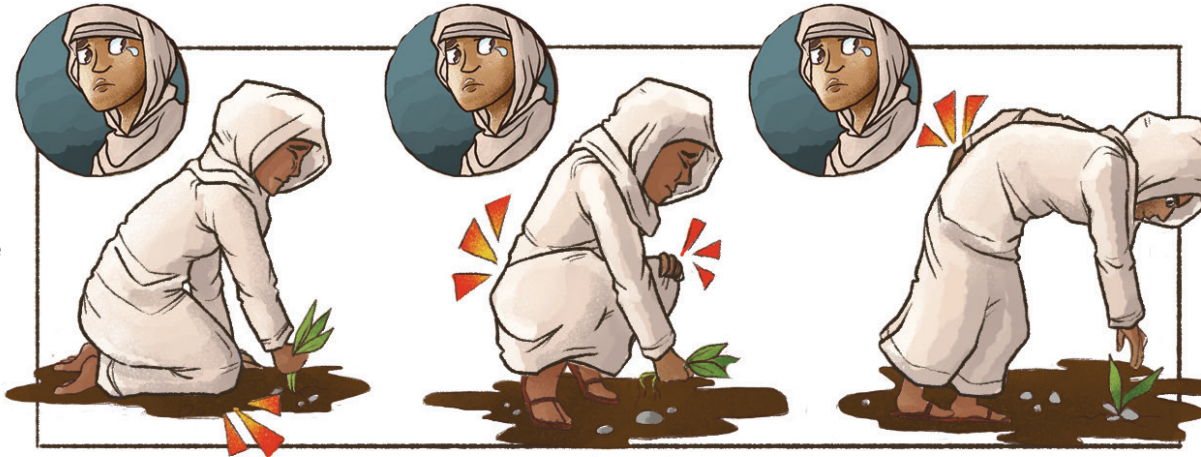


Lesson: Lesson: Kneepads can reduce pain at knees and prevent knees from becoming wet or cold such as during weeding

1. Traditional practice causes cold, pain on knees



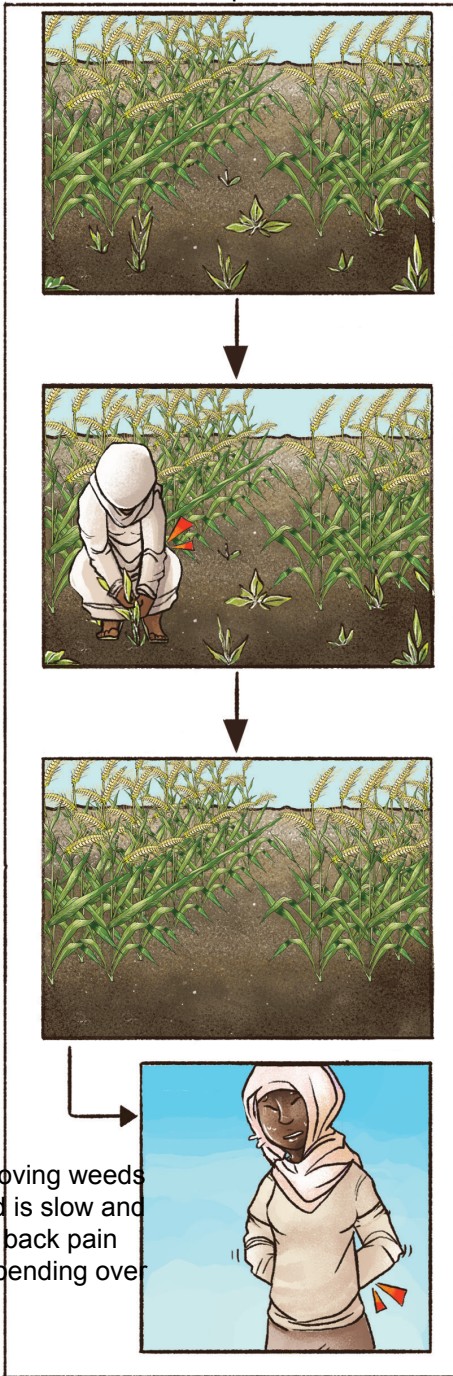
2. New practice

3. Purchase from vendor



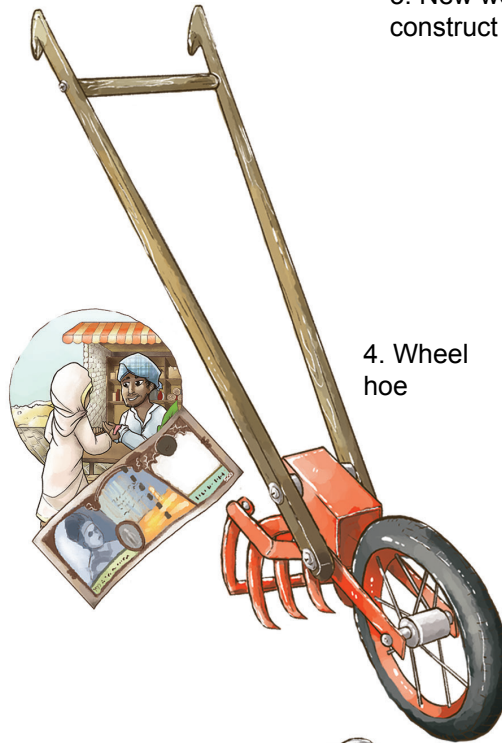
Lesson: New tools to reduce drudgery of hand removal of weeds

1. Traditional practice

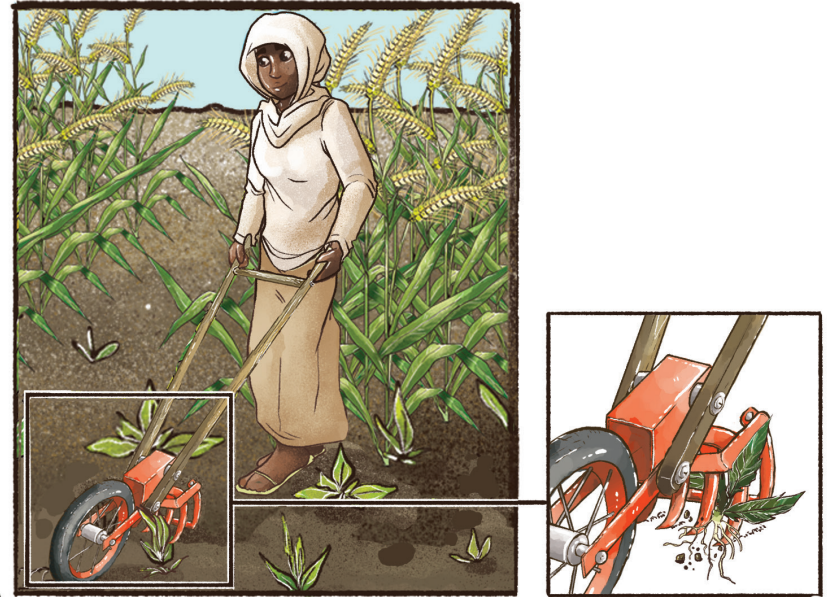


2. Removing weeds by hand is slow and causes back pain due to bending over

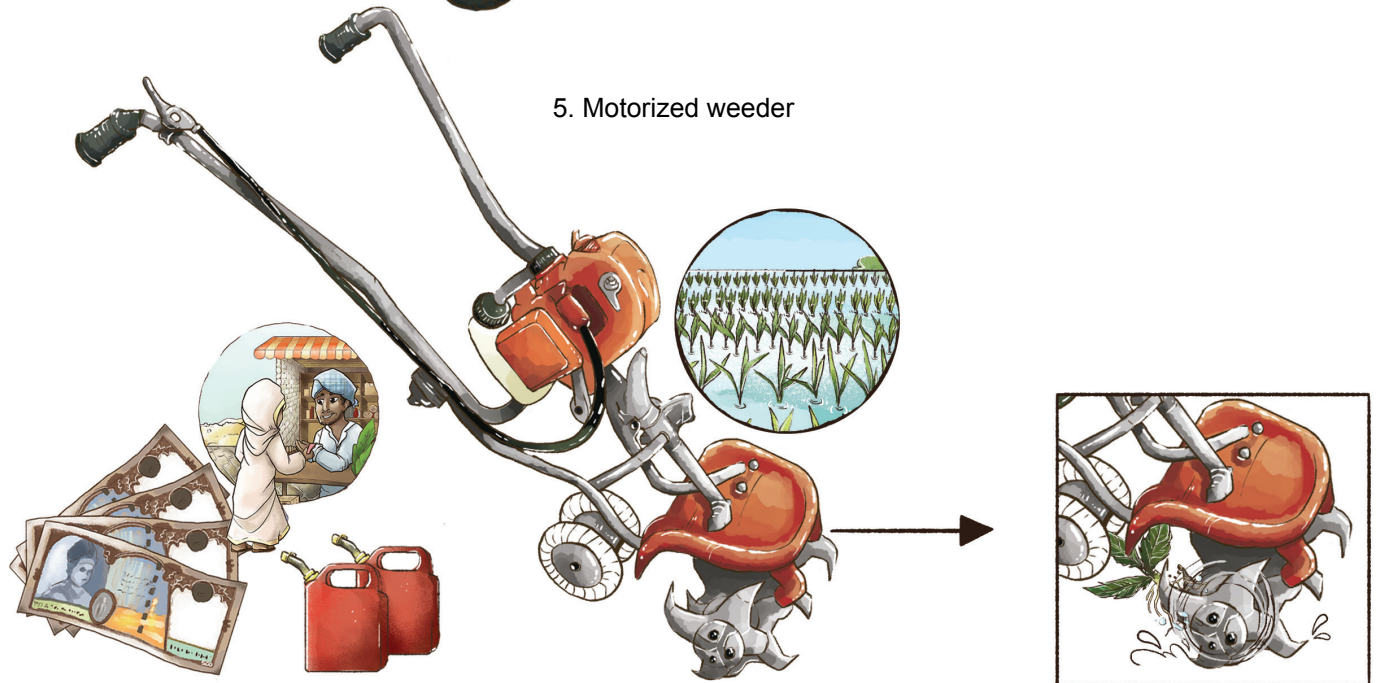
3. New weeding tools: ask nearby vendor to supply or ask local blacksmith to construct



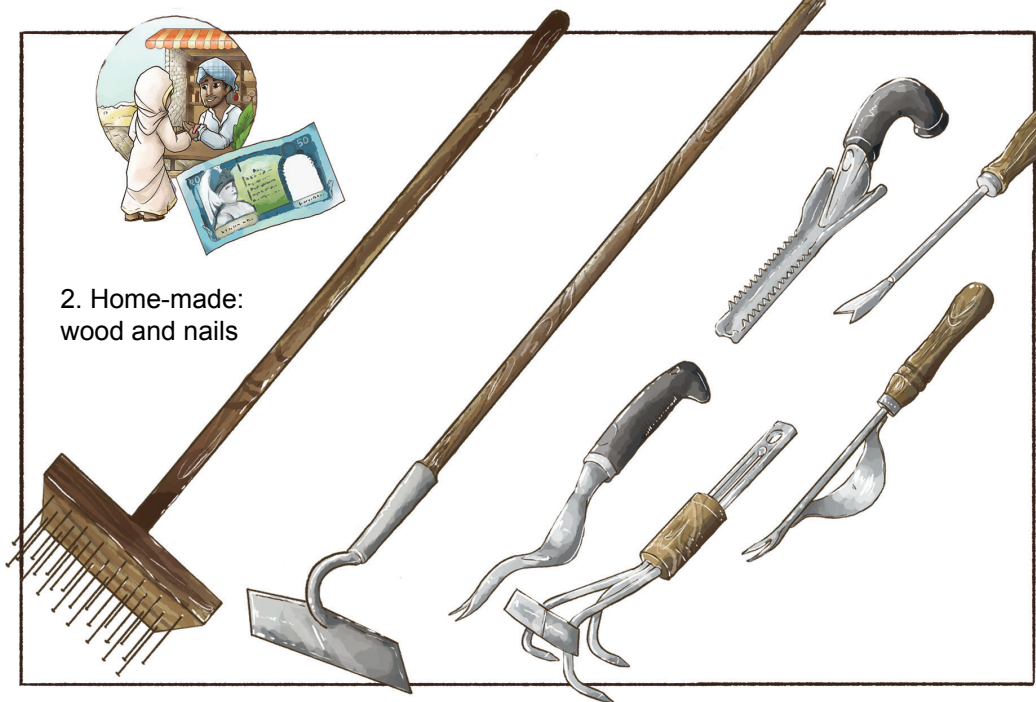
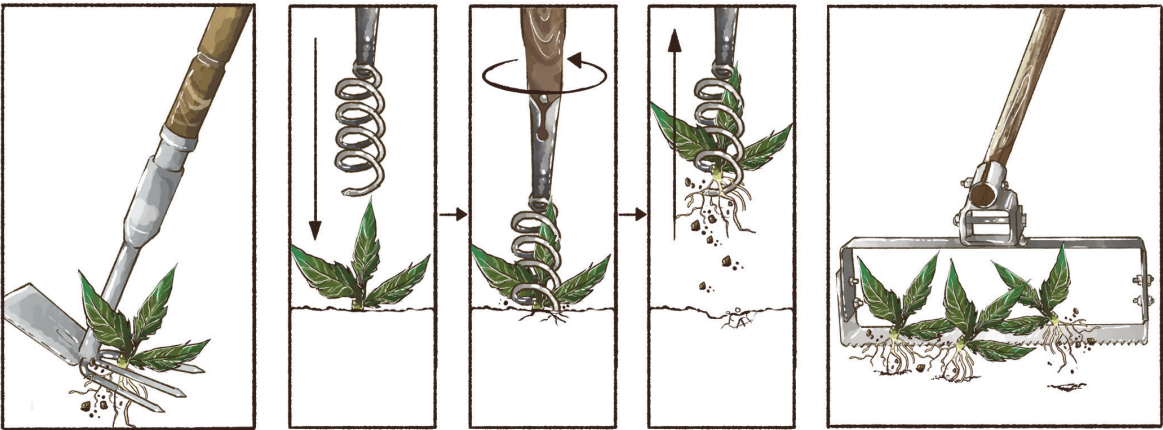
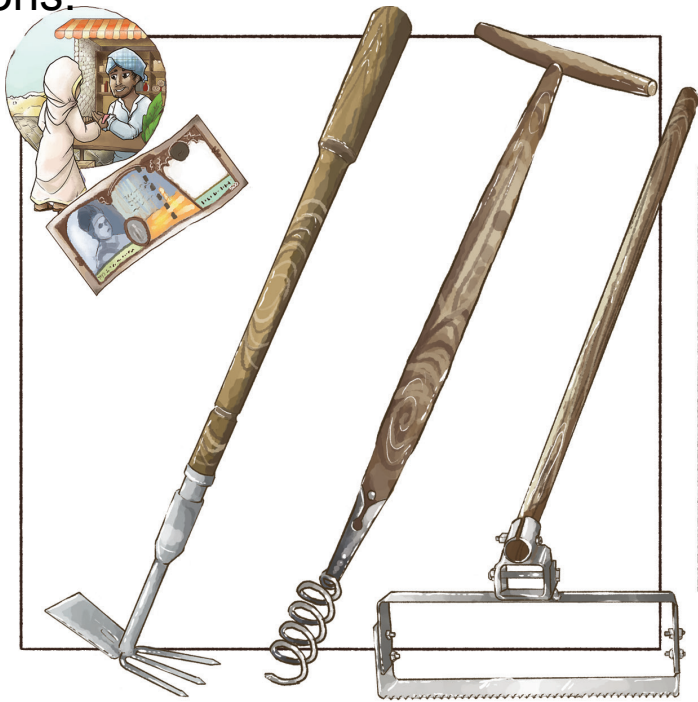
4. Wheel hoe



5. Motorized weeder



Lesson: New tools to reduce drudgery of hand removal of weeds: Long-handled, medium cost options.



4. How to use



Lesson: New tool to reduce drudgery of hand removal of weeds: Fork weeder.

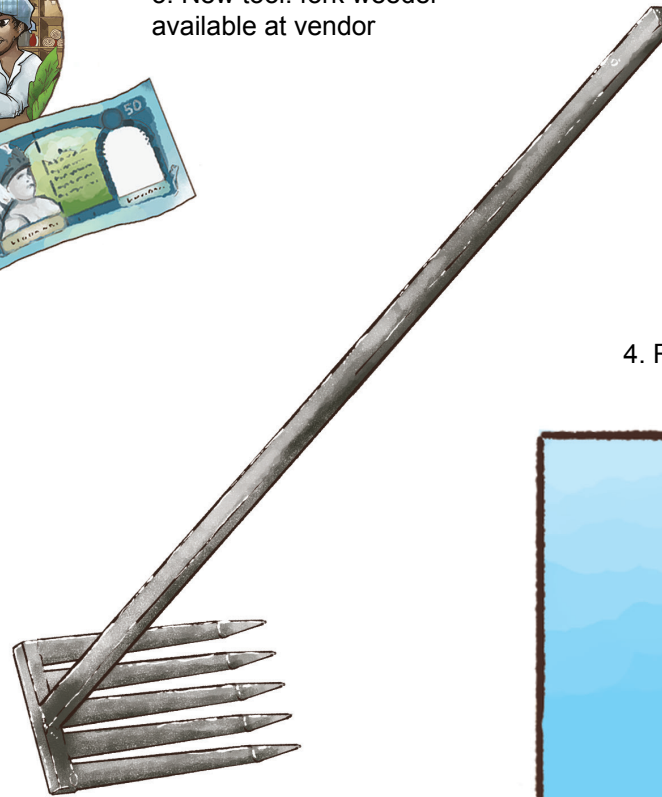
1. Traditional practice



2. Removing weeds by hand is slow and causes back pain due to bending over.



3. New tool: fork weeder available at vendor

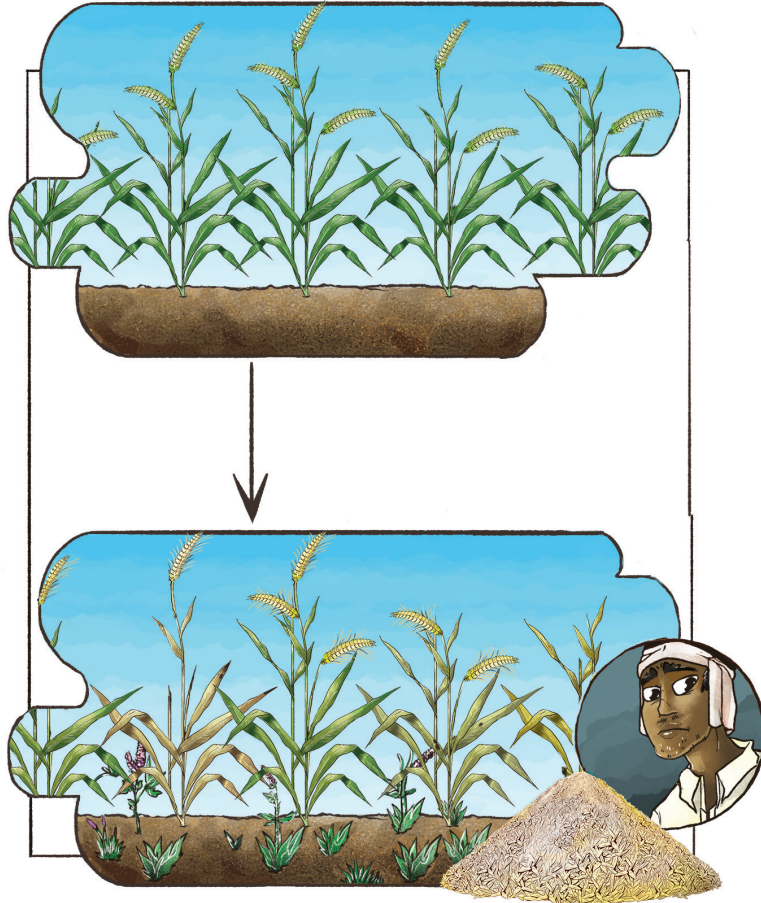


4. Remove weeds easily



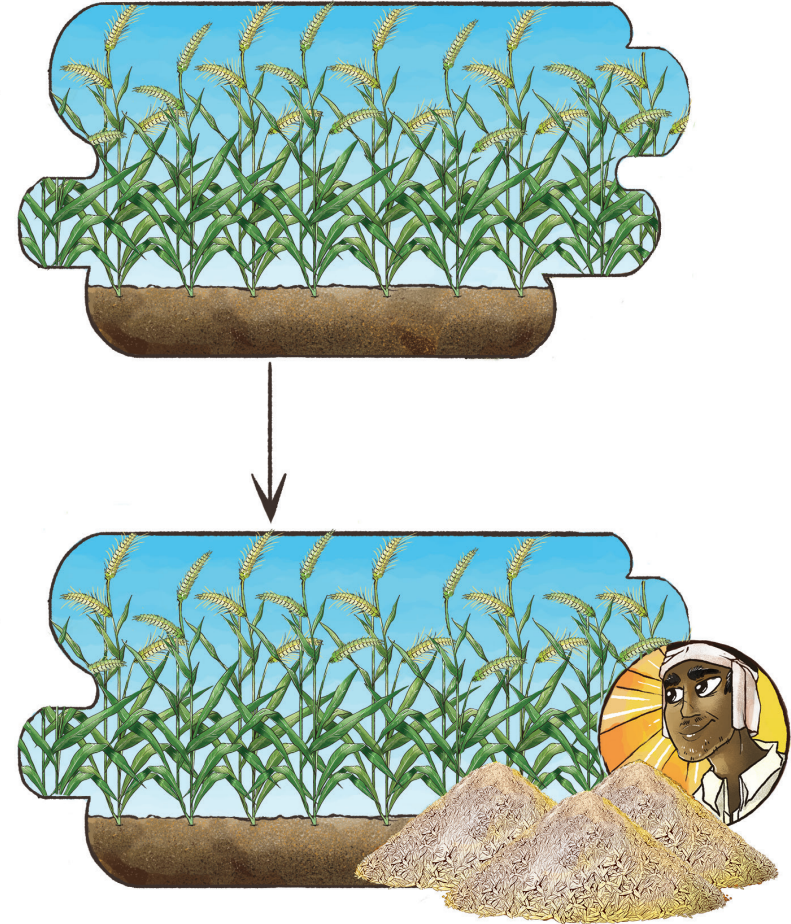
Lesson: Sowing crops at a high density can suppress weeds

1. Traditional practice: sowing crops in rows with wide spacing



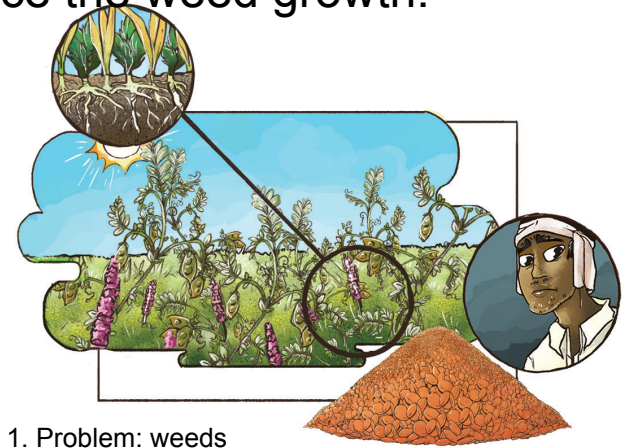
2. Weeds grow, low yields

3. Improved practice: sow crops in rows with very narrow spacing



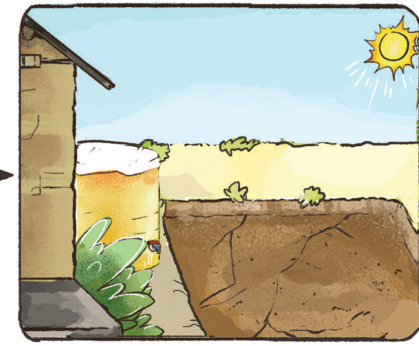
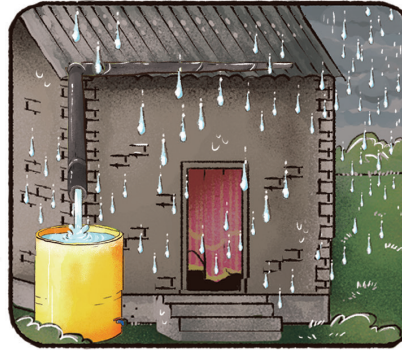
4. Fewer weeds, higher yields

Lesson: Sowing finger millet in a nursery using irrigated water, followed by transplanting, can reduce the weed growth.

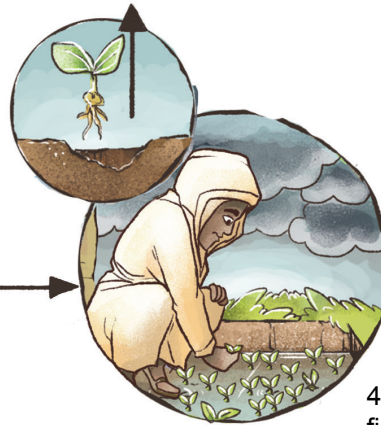
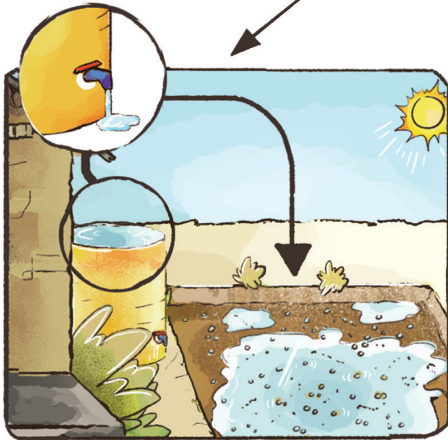


1. Problem: weeds (red flower) reduce yield of millet

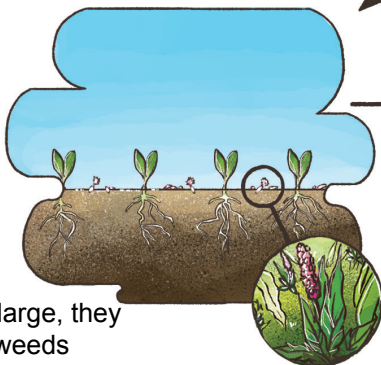
2. Improved practice



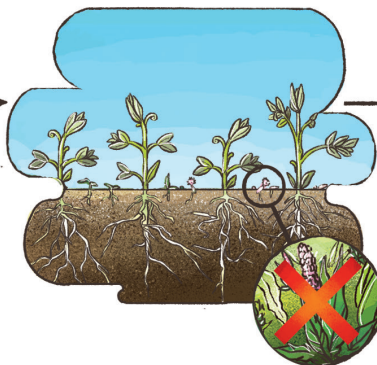
3. Sow millet seedlings at end of dry season in a nursery and use harvested rainwater for irrigation



4. Transplant seedlings to field at start of rainy season



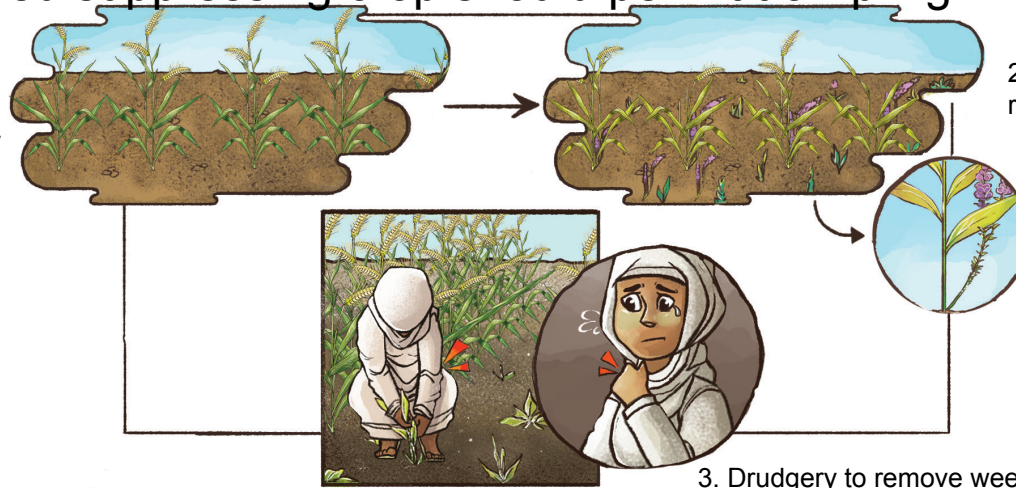
5. Since millet plants are large, they outcompete germinating weeds



6. High grain yields

Lesson: To suppress weeds, sow seeds of a spreading type crop or forage in between rows of the major crop. The weed suppressing crop should permit trampling.

1. Traditional practice is to sow seeds of a sole crop in rows.

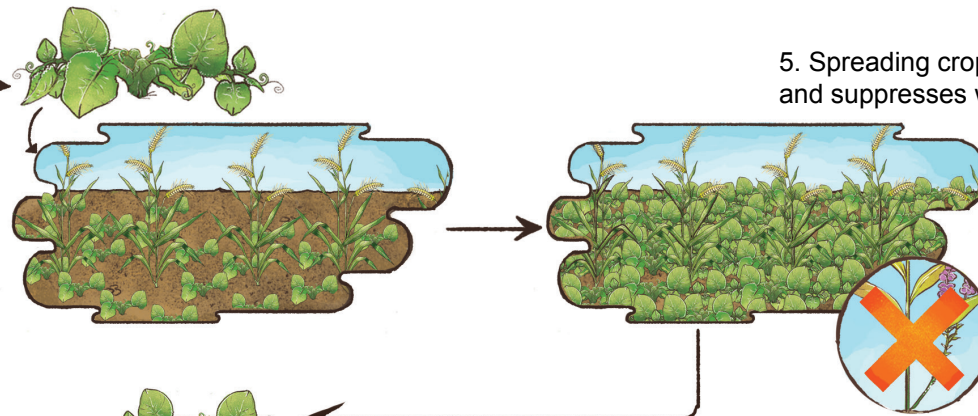


2. Problem: weeds grow in between rows.

3. Drudgery to remove weeds

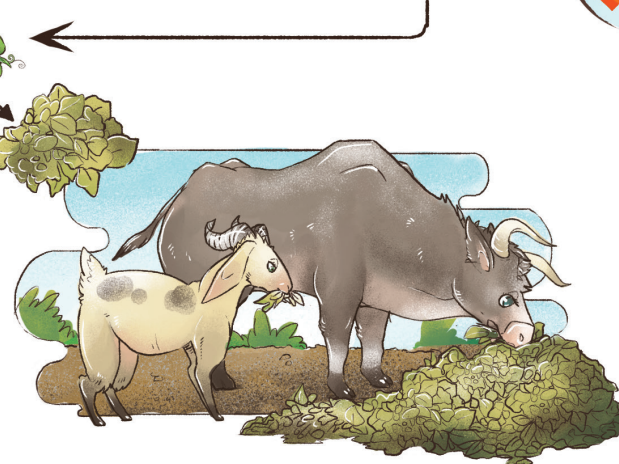


4. Improved practice: in between rows, sow seeds of a spreading type (e.g. cucurbits)



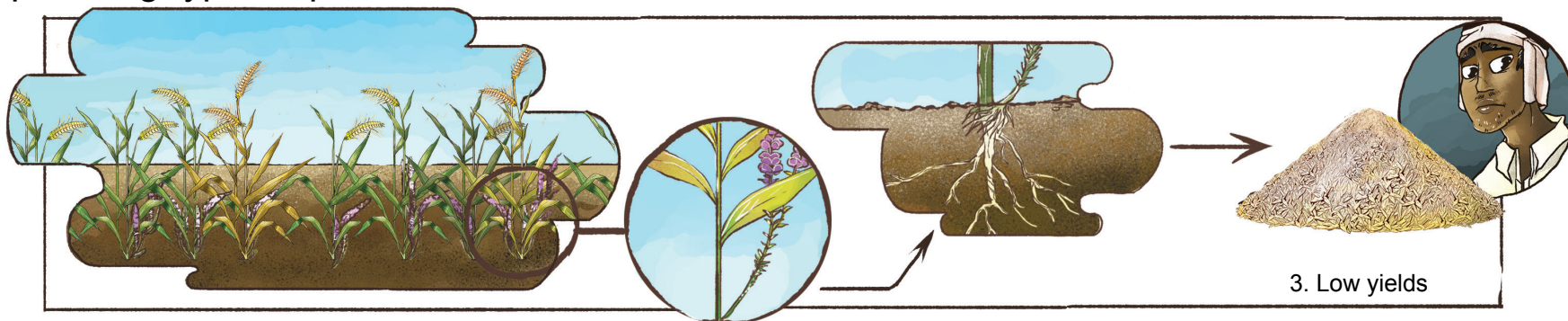
5. Spreading crop covers the ground and suppresses weeds.

6. Cover crop may be harvested and consumed by livestock as an animal feed or by humans.

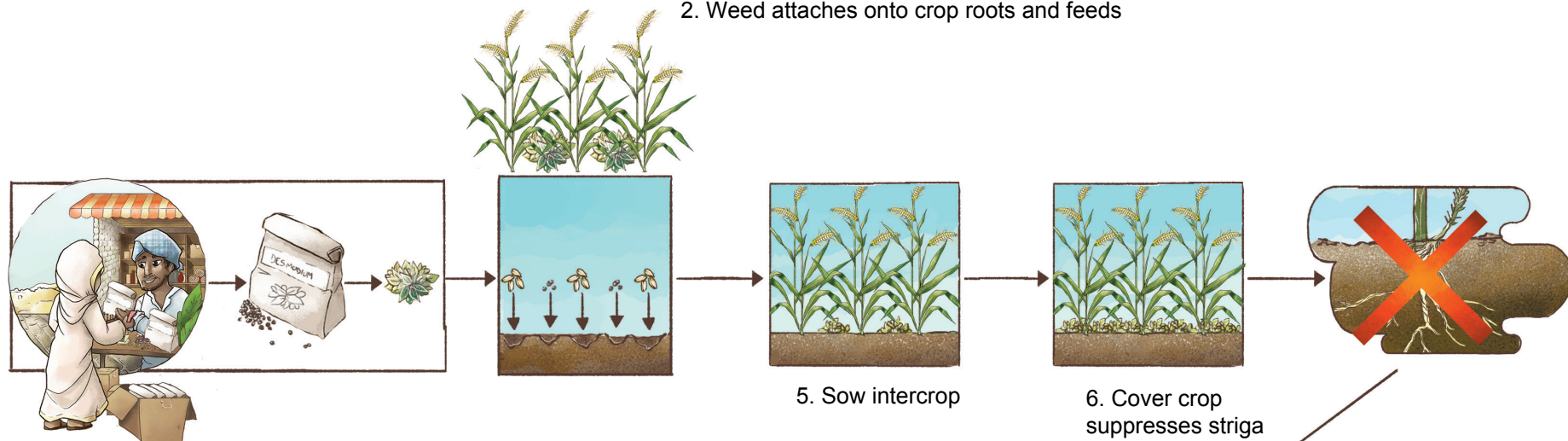


Lesson: Parasitic striga weed can be suppressed by intercropping with Desmodium or other spreading-type crops

1. Traditional practice: no cover crop - purple or white flowered striga weed grows



2. Weed attaches onto crop roots and feeds



4. Improved practice: purchase Desmodium seed or other spreading-type seed from vendor

5. Sow intercrop

6. Cover crop suppresses striga weed

7. High yields. Desmodium also adds natural nitrogen fertilizer to soil and can be used as livestock feed



Lesson: Removing weeds before they produce flowers will reduce weeds in future years

