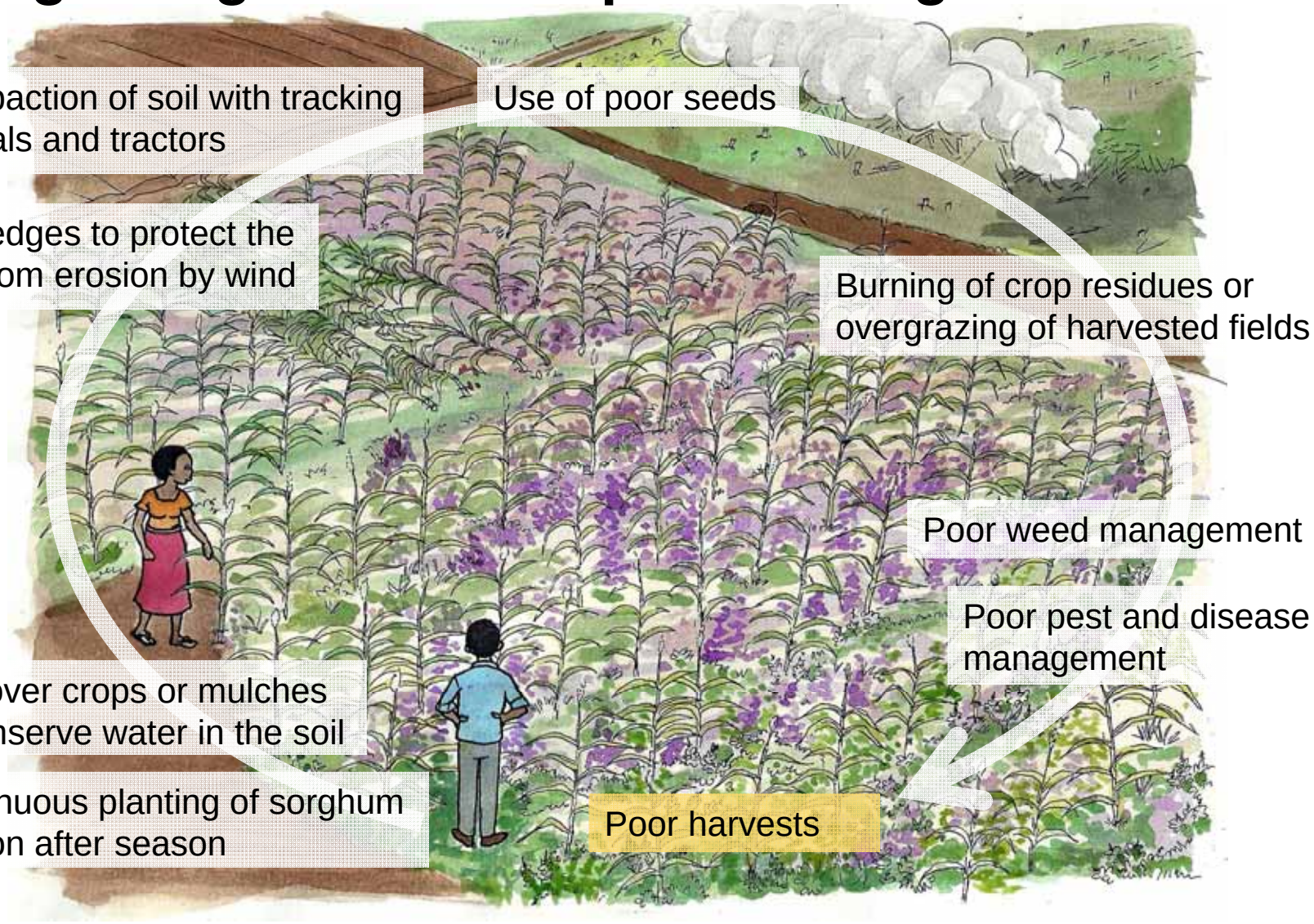
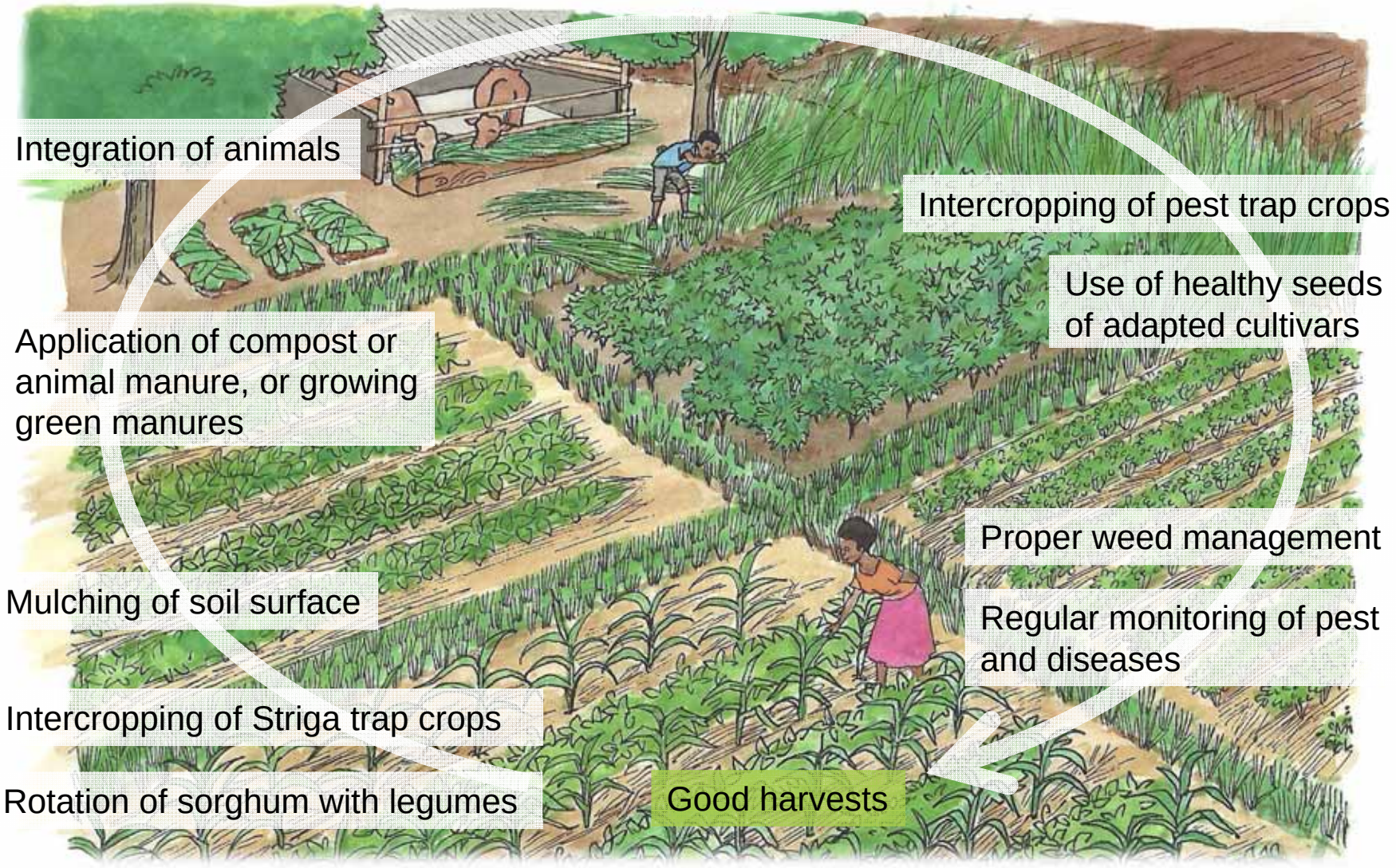
Sorghum grown under poor management



Improved cultivation of sorghum

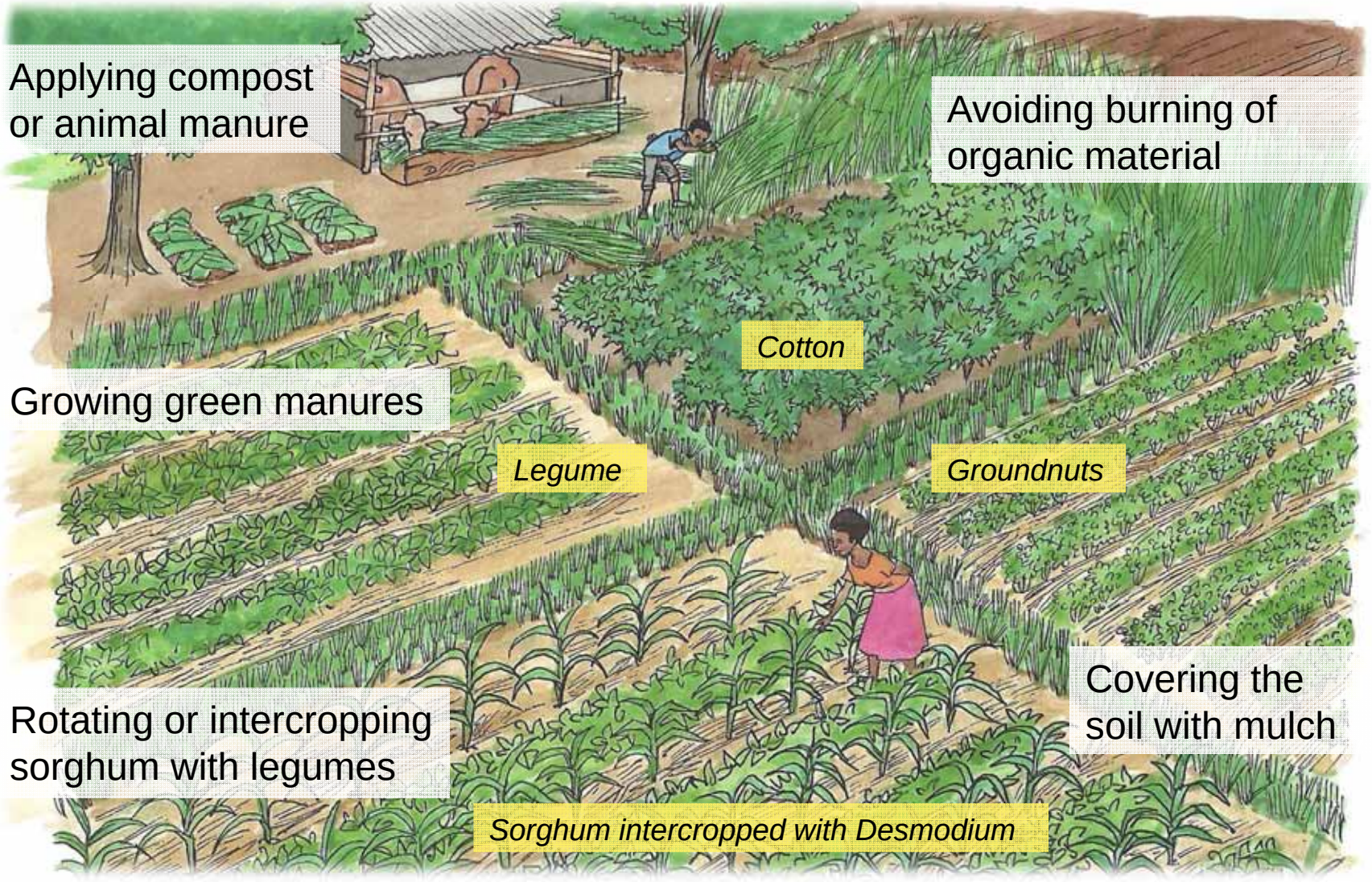


Selection of appropriate cultivars

Criteria for selecting sorghum cultivars

- Type corresponding to the intended use
- Adapted to local growing conditions
- Tolerance to the main local pests and diseases like leaf diseases, green bugs, sorghum midge, stemborers, panicle feeding bugs
- Early and uniform maturity
- Dual purpose with good grain and good stover yields to provide fodder for livestock also
- Grain quality that corresponds to processing requirements and consumer preferences

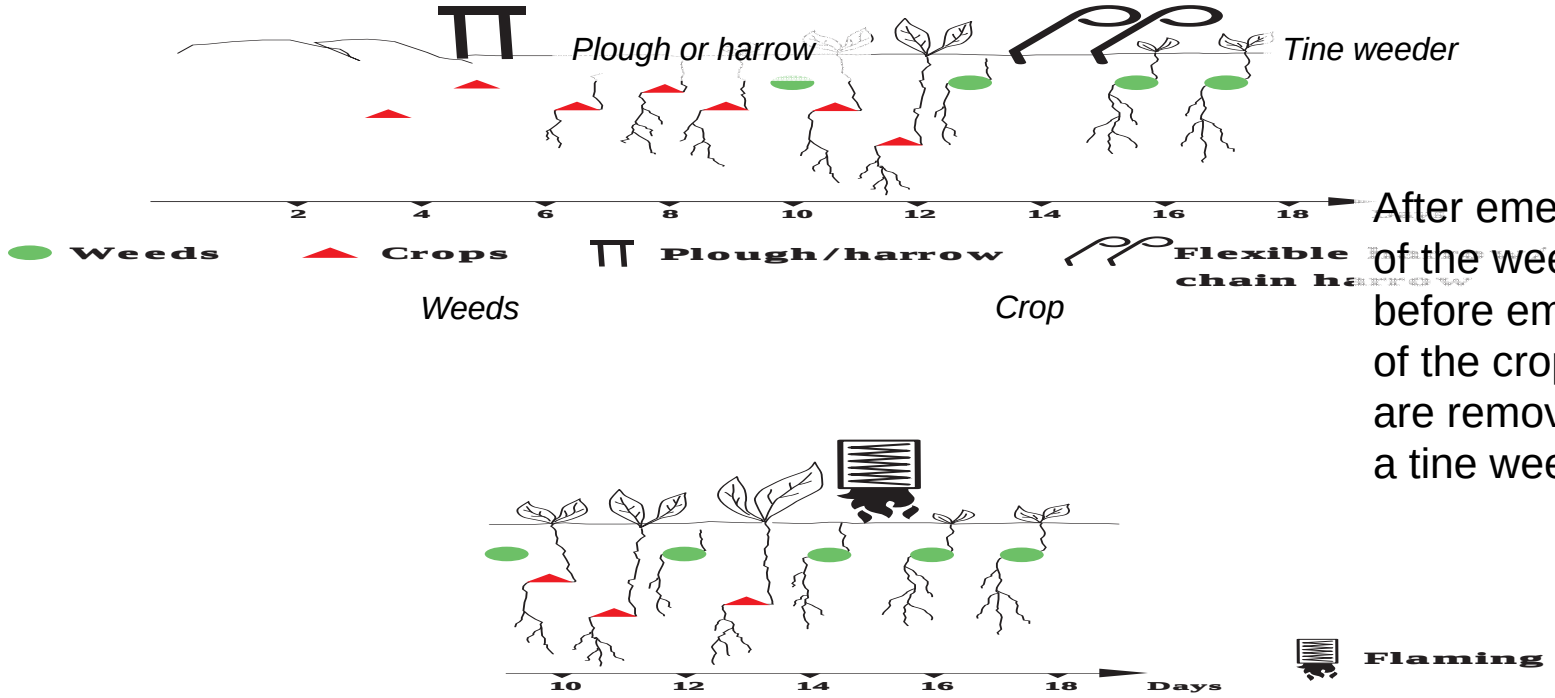
How to ensure good nutrition of sorghum



Blind harrowing

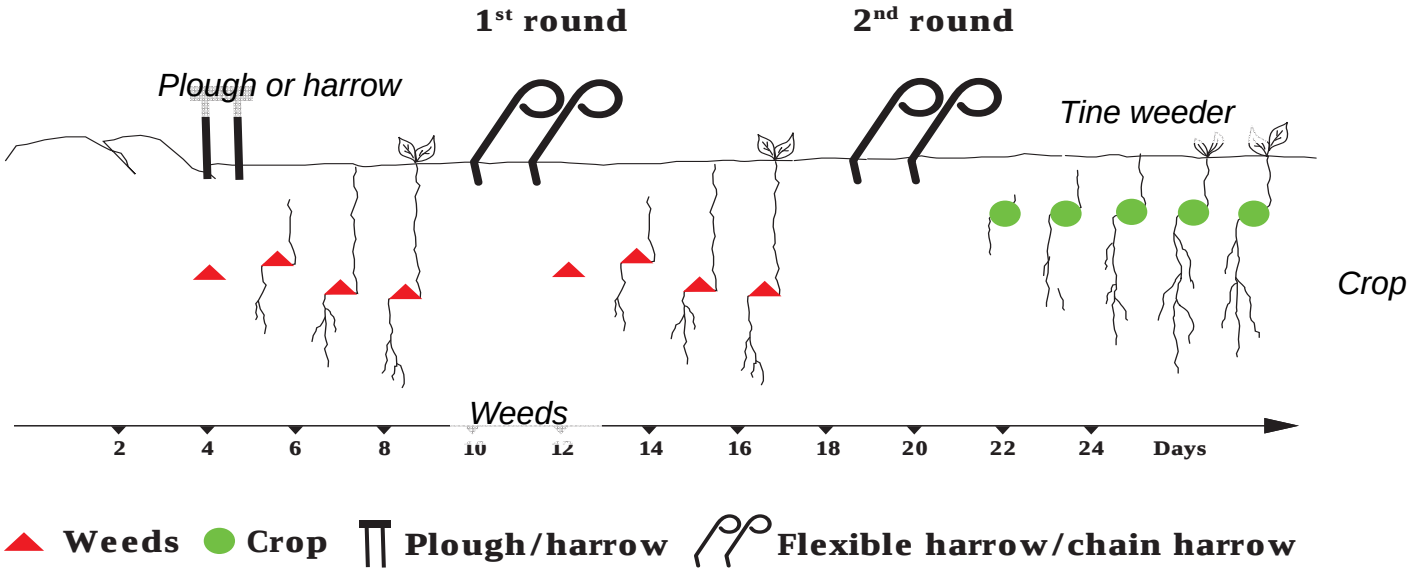
› Controlling weeds between sowing and crop emergence

In ploughed fields with bare soil weeds can be controlled using a tine weeder.



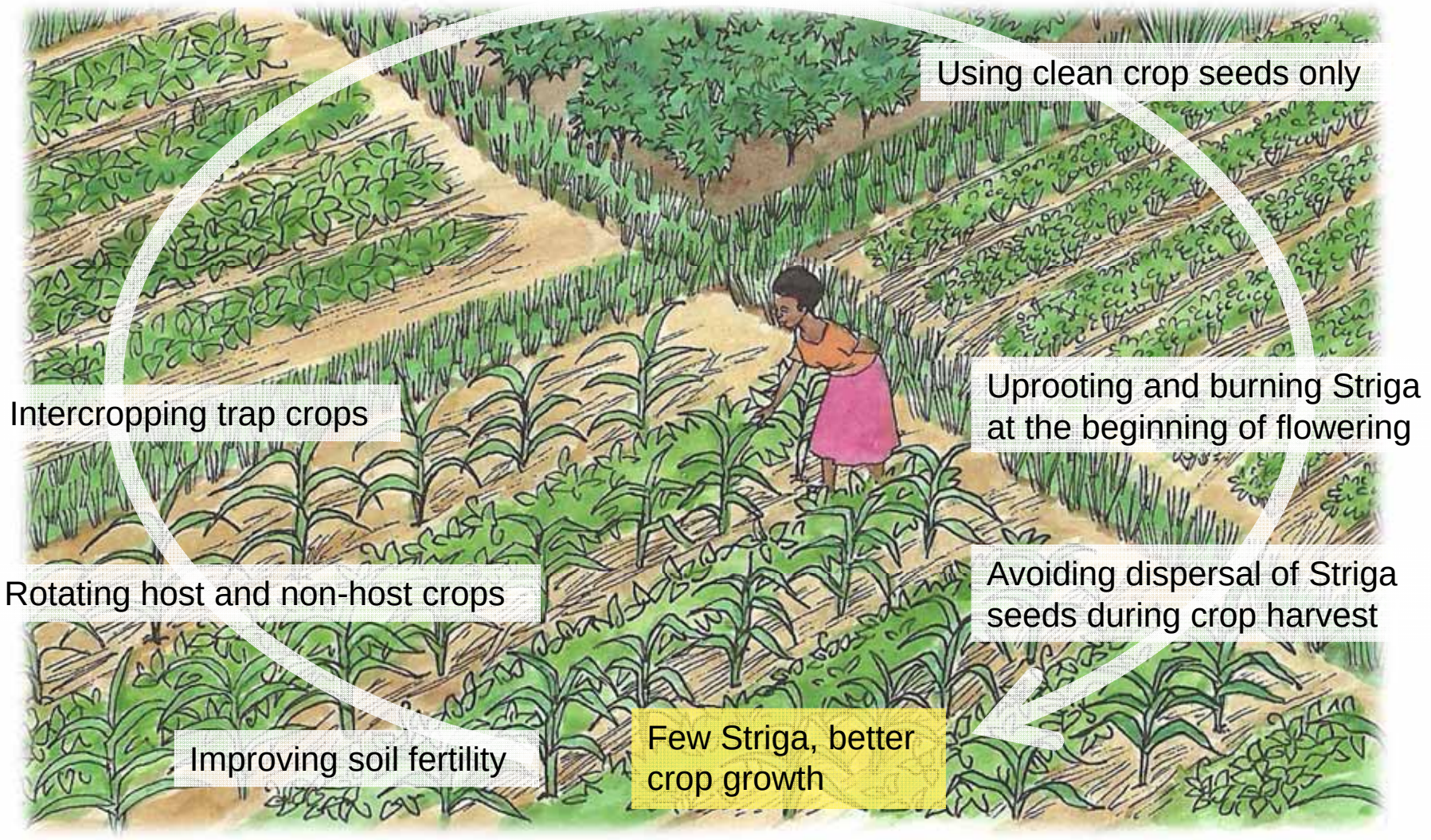
After emergence of the weeds, but before emergence of the crop weeds are removed with a tine weeder.

False seedbed

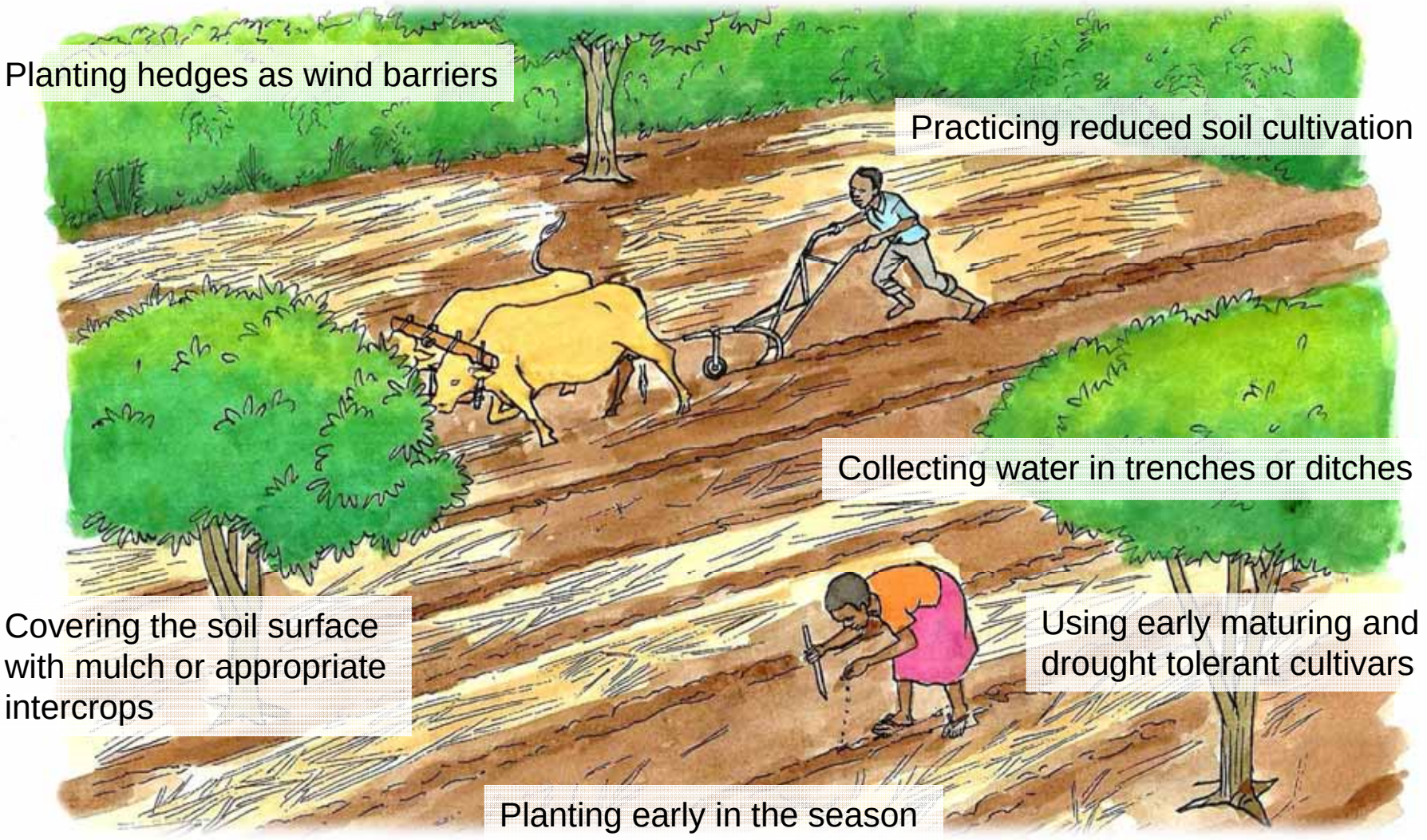


1. Prepare the seedbed early (2 to 4 weeks before seeding or planting).
2. Wait until the weeds have emerged.
3. Destroy the weeds at intervals of 7 to 10 days using a tine-weeder.

How to control Striga effectively



How to improve water supply of sorghum



Controlling stemborer with the push-pull method

2. Plant 2 to 3 rows of healthy Napier grass around the plots before the rain season at 75 cm between rows and 50 cm within rows
3. Sow repelling intercrops together with sorghum
4. Weed intercrops repeatedly

Control of major diseases of sorghum

Diseases	Symptoms	Control measures
Stalk rot	› Rotting of roots and premature death › Infected stalk tissue turns dark red › Lodging of plants	› Crop rotation › Use resistant cultivars › Proper spacing
Anthracnose	› Orange, red- or blackish purple leaves › Small leaves with circular or elliptical shape	› Use resistant cultivars (hybrids) › Rotation with pulses › Encourage decomposition of crop residues after harvest
Smuts	› Sorghum kernels are replaced by a cone-shaped gall (Covered kernel smut) › Long and pointed galls formed by loose kernels (Loose kernel smut) › Large, dark-brown smut galls emerging in place of the panicle (Head smut)	› Use resistant cultivars or certified disease-free seeds › Hot water treatment of seeds › Crop rotation with non-cereals › Removal of infected panicles
Downy mildew	› Vivid green and white stripes on the leaves and heads › Heads partially or completely sterile	› At least 3 years between two sorghum or maize crops › Use of resistant cultivars › Use of clean, properly dried seeds › Proper plant spacing

Control of major pests of sorghum

Pests	Preventive and cultural measures	Direct control
Shoot fly	› Use of tolerant cultivars (for late planting mainly) › Early, uniform sowing at high seeding rates › Intercropping of legumes (non-host plants) › Removal of wild grass species › Incorporation of crop residues into the soil	› Removal and destruction of infested plants › Spraying of Bacillus thuringiensis against larvae › Spraying of Neem solution against larvae
Stemborer	› Early sowing › Intercropping of repelling plants › Promotion of natural enemies › Planting of Napier grass as a trap crop › Destruction of infected crop residues after the harvest	› Application of a Neem- or a fish bean plant extract sawdust/clay mixture into the funnel of young plants
Sorghum midge	› Early and uniform sowing with high densities › Use of resistant cultivars › Crop rotation and intercropping with pulses › Removal of host weed species › Incorporation of crop residues after harvest	› Spraying of pyrethrum extract