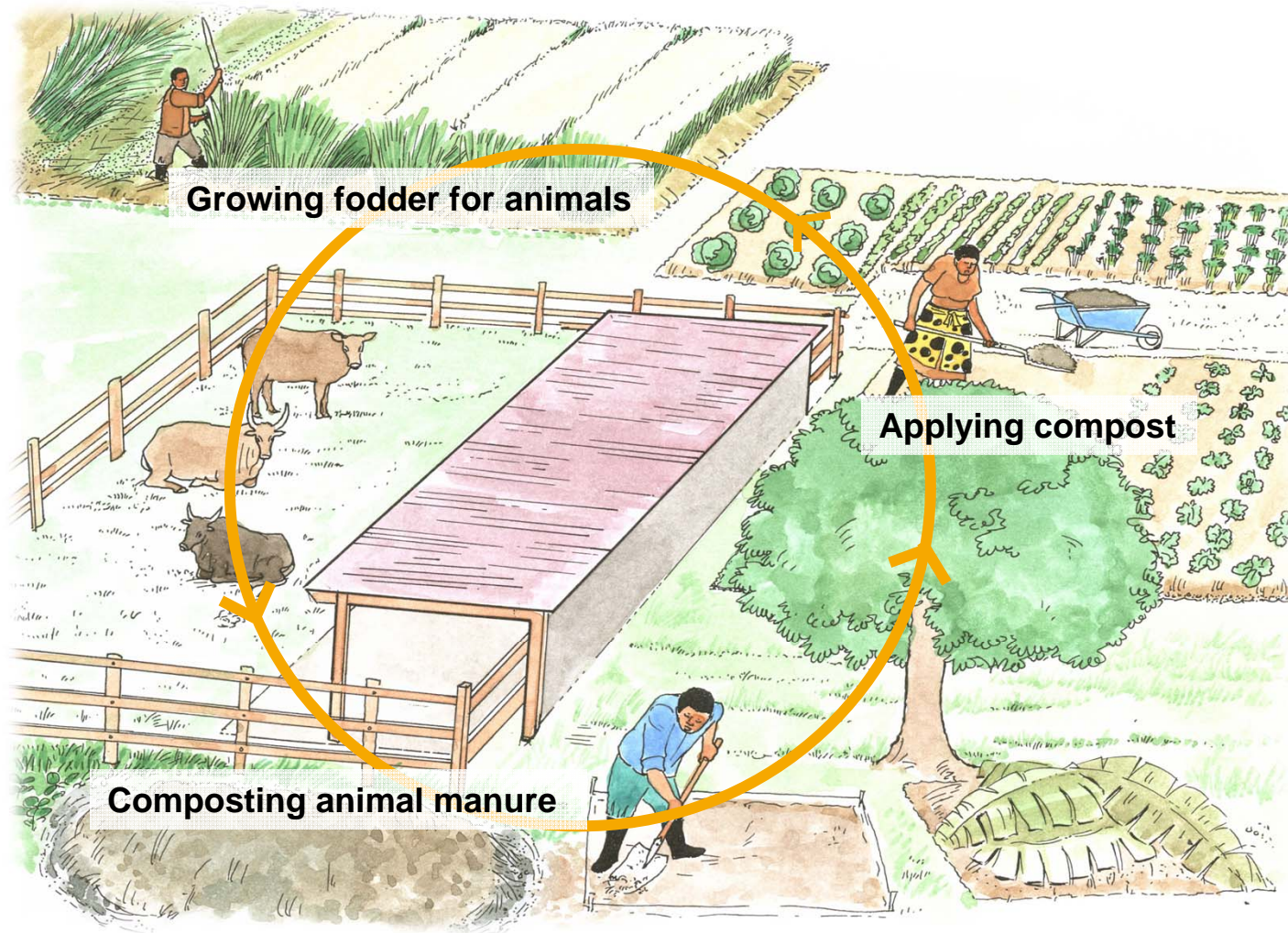
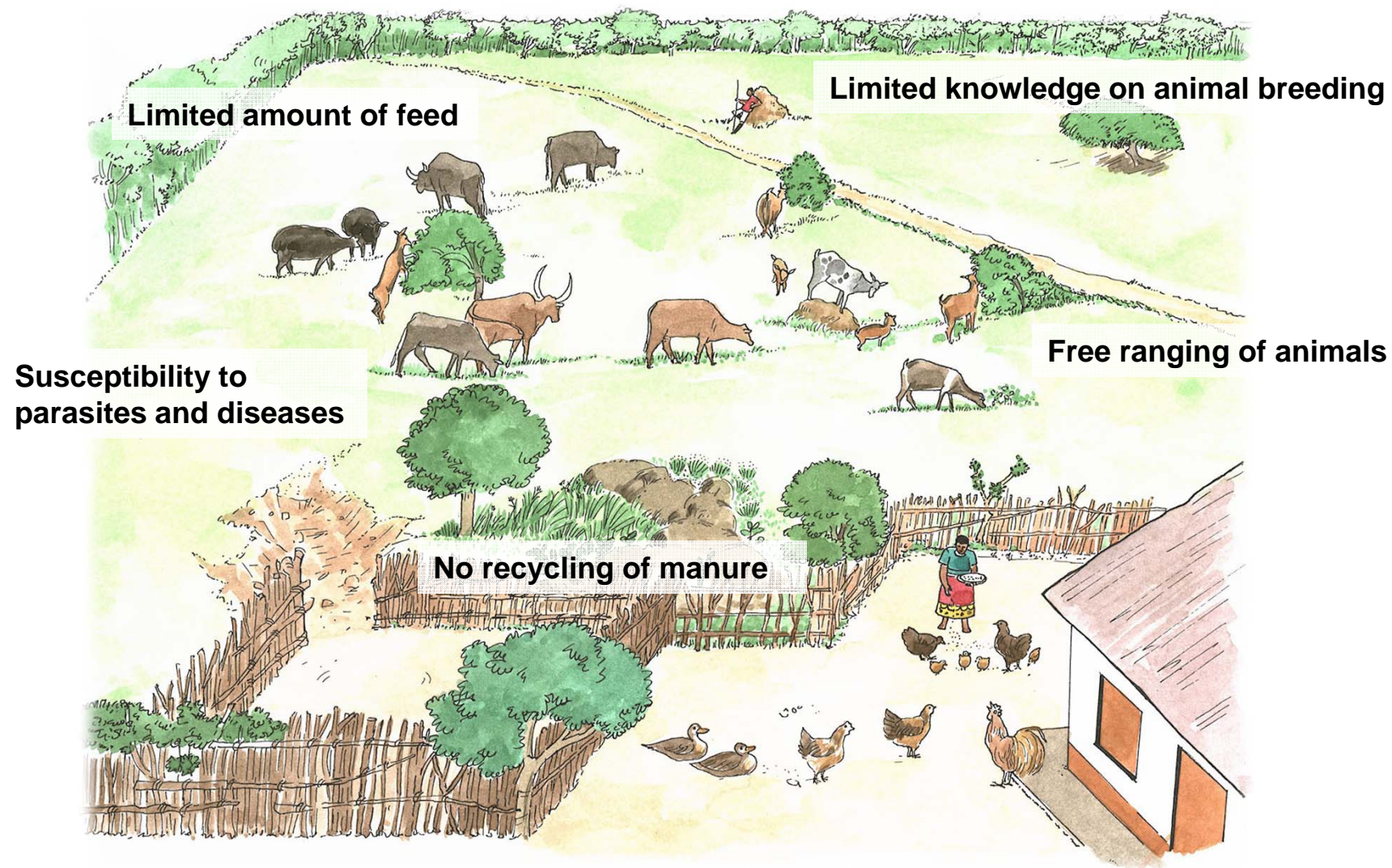


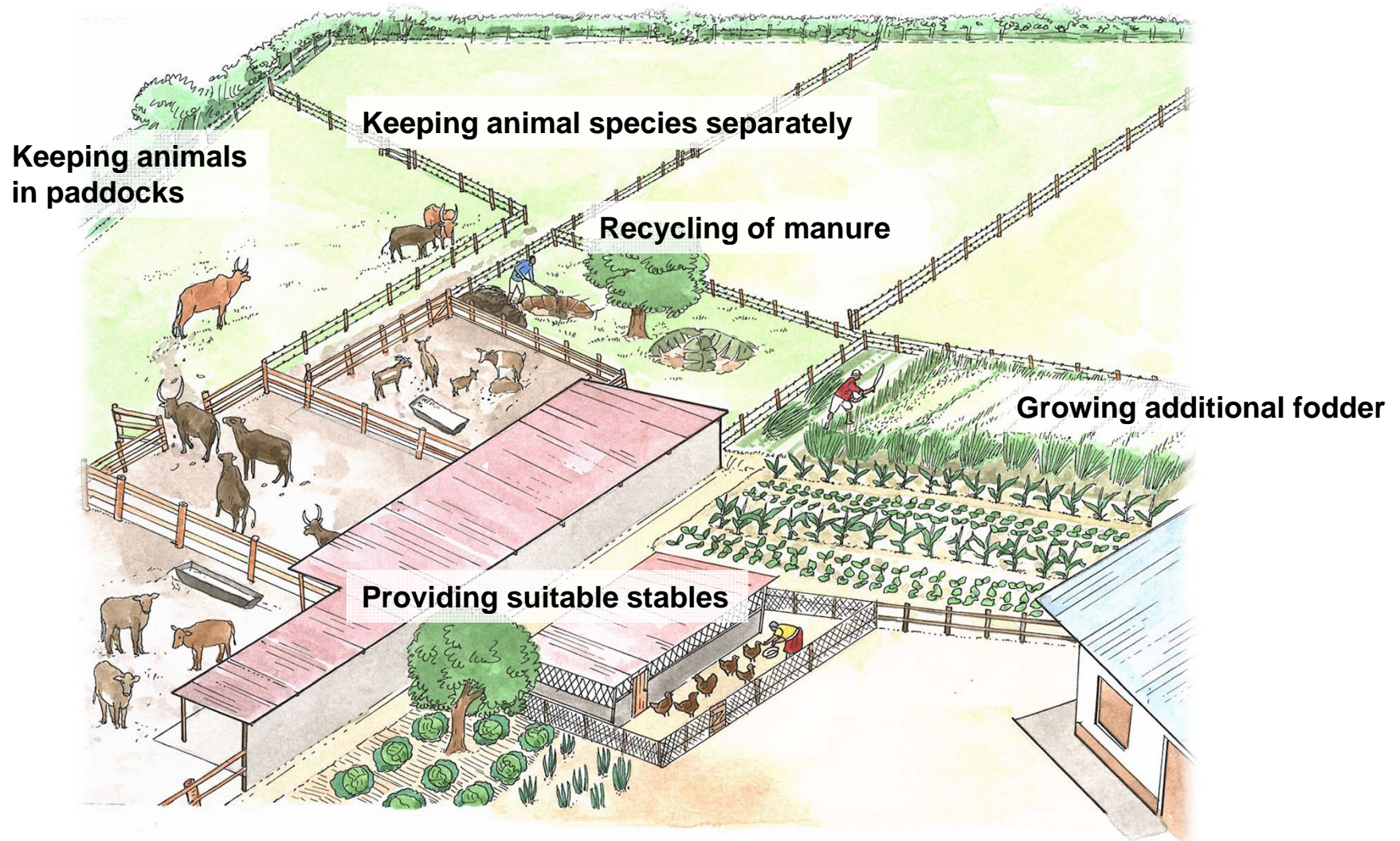
Animal husbandry and the nutrient cycle



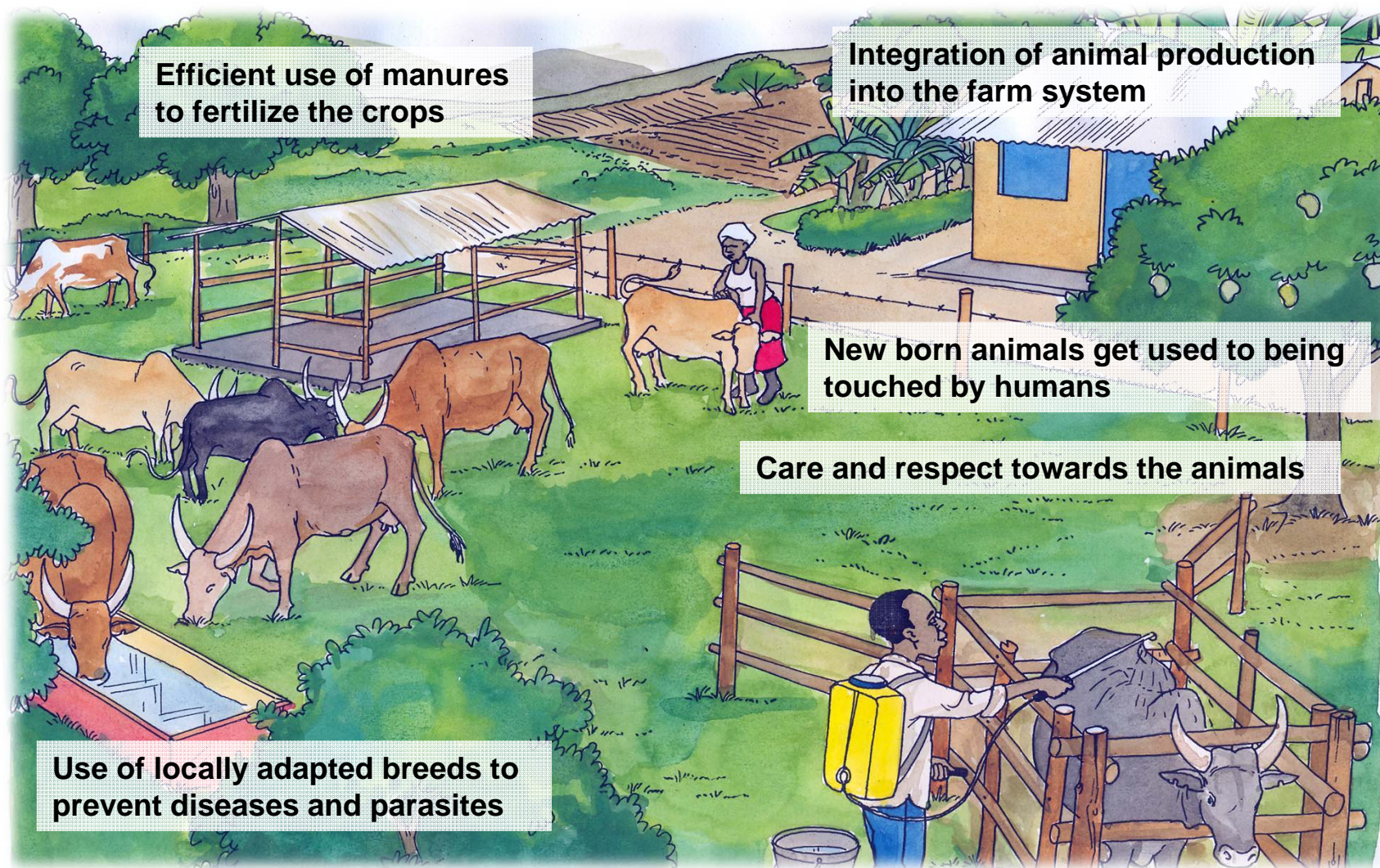
Common animal husbandry



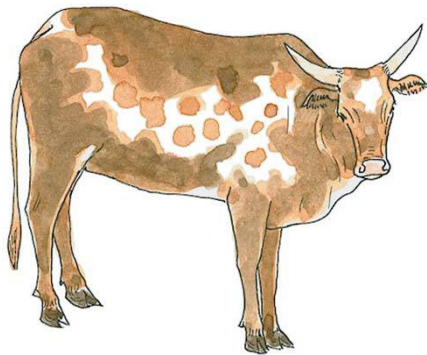
Improved animal husbandry



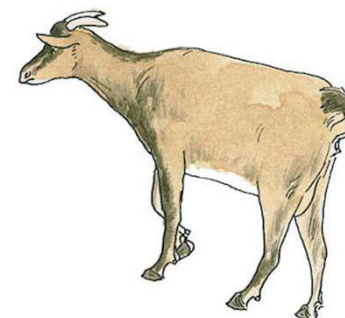
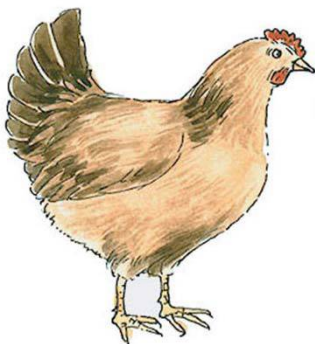
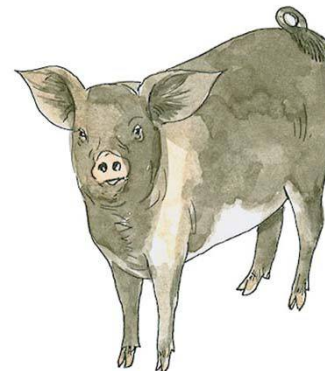
General approach of organic animal management



General criteria for selection of animal breeds



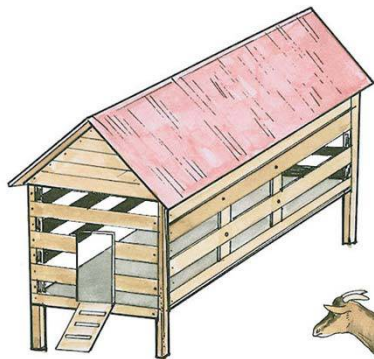
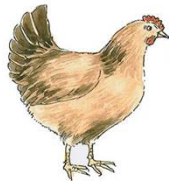
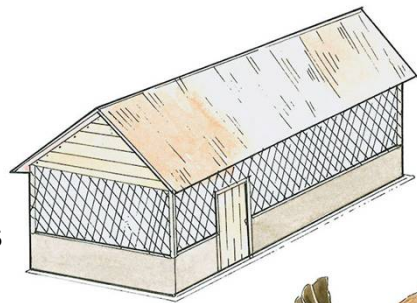
- › **Feeding requirements**
- › **Growth duration**
- › **Production potential**
- › **Adaptability to local conditions**
- › **Physical characteristics related to the use of the breed**



Samples of suitable housing structures

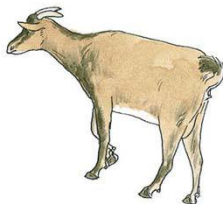
Poultry

- › Perching rails
- › Dust baths
- › Dark, secluded nests
- › Access to open ground



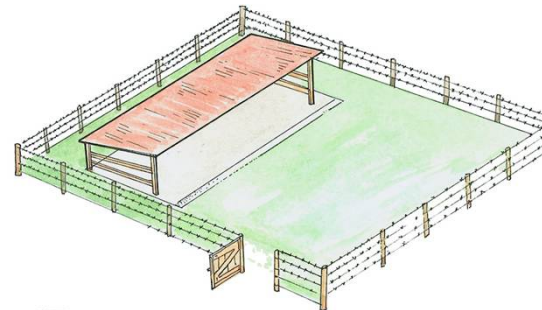
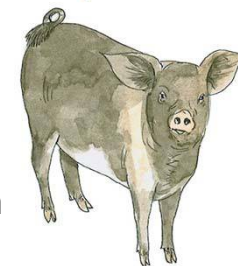
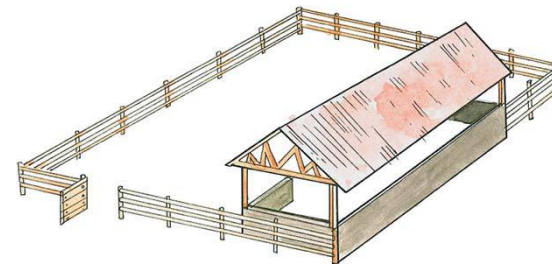
Goats

- › Feeding on suspended forage
- › Bedding off the ground
- › Enough space



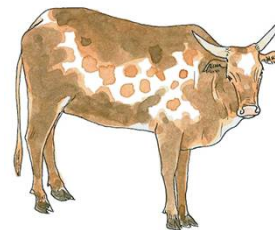
Pigs

- › Spaces for resting, feeding and relieving
- › Access to a muddy place
- › Stable wall for brushing
- › Natural materials to play with




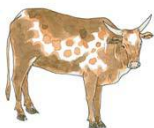


Cows

- › Enough space
- › Sloping floor for drainage of urine



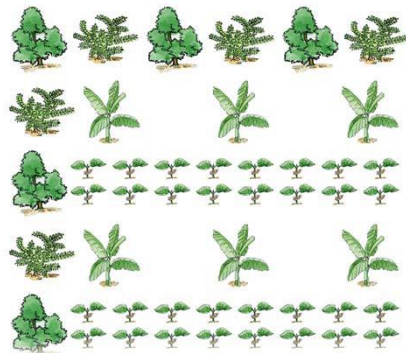
Nutritional sources for livestock species

| Species | Carbohydrates | Proteins | Fats | Vitamins | Minerals |
|--|--|--|---|---|--|
| Poultry  | Cereal grains, tubers and their industrial by-products | Insects and worms, legume seeds and legume plants, fish meal | Cottonseed, sunflower, sesame or peanut cakes | Leafy greens, pepper, fruit and vegetable wastes, berries | Oyster shell, grit/stones, bone meal |
| Pigs  | Like poultry | Leguminous fodder and grains, kitchen food waste, fish meal | Like poultry | Fruit peels and kitchen food waste, roots | Mineral licks, dried leaves |
| Goats & Sheep  | Forages, pasture, crop residues | Leguminous fodder, young grass | Not necessary to feed fat | Green pasture, fresh or dried leaves, | Mineral licks, dried leaves, bark, herbage, shrubs |
| Cattle  | Like goats | Like goats | Like goats | Like goats | Like goats |

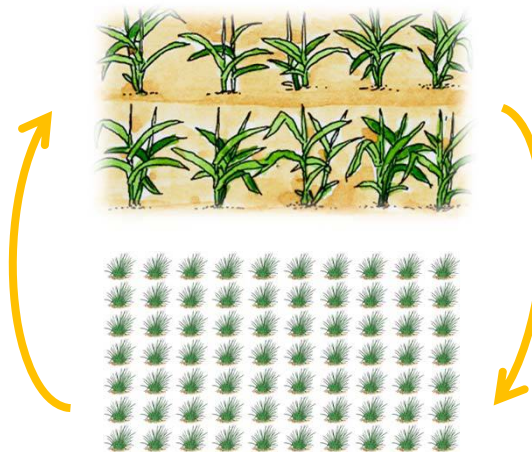


Integrating fodder crops into the farming system

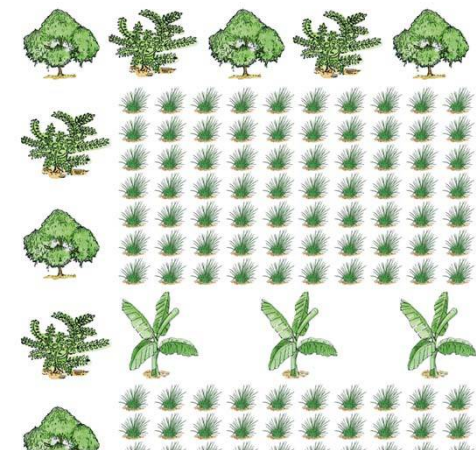
Planting hedgerows



Rotating fodder plants with other crops



Intercropping fodder plants with fruit trees



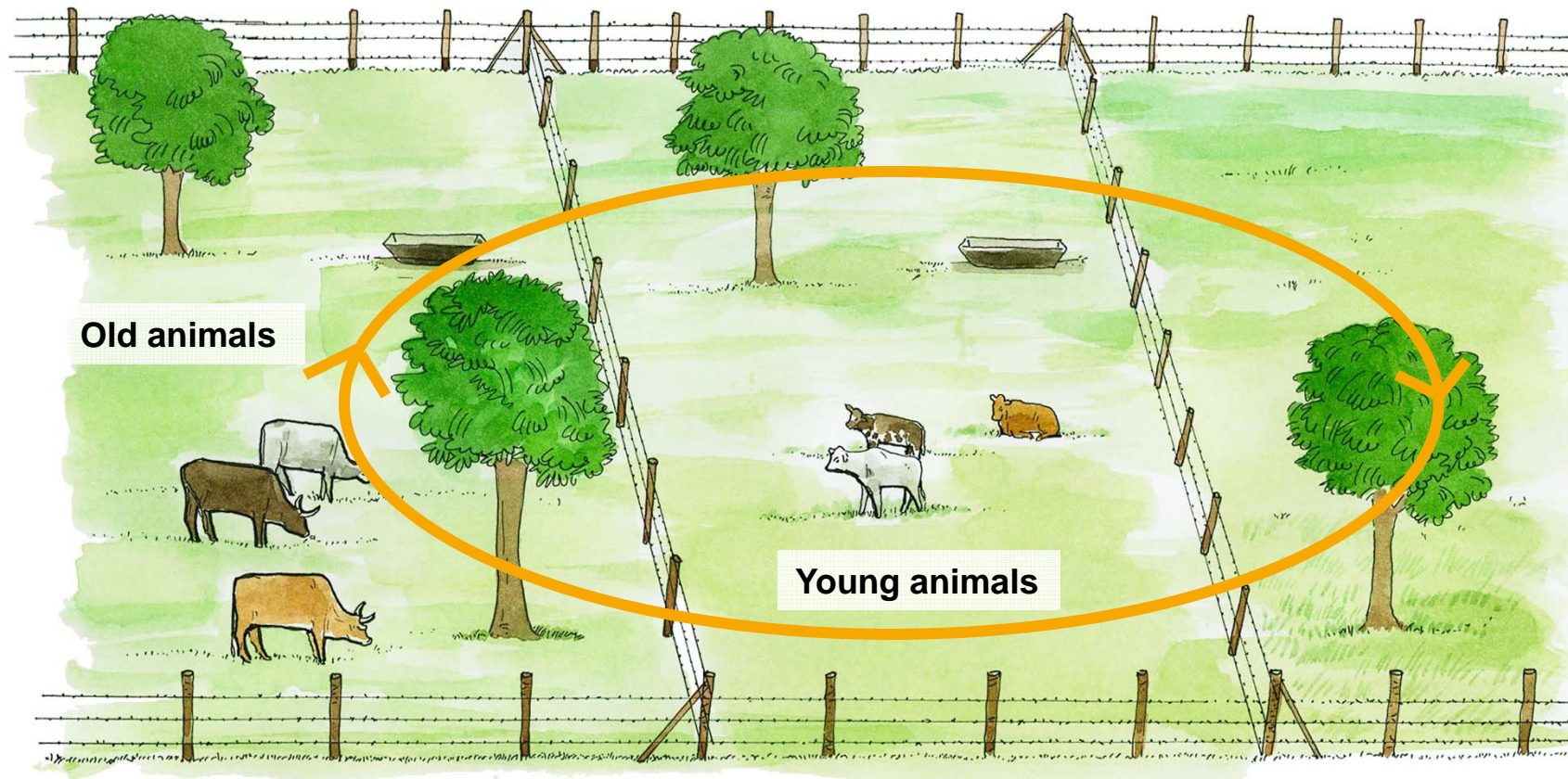
Grazing animals in an orchard (silvi-pastoral system)



Planting grass contour bands



Rotational grazing patterns



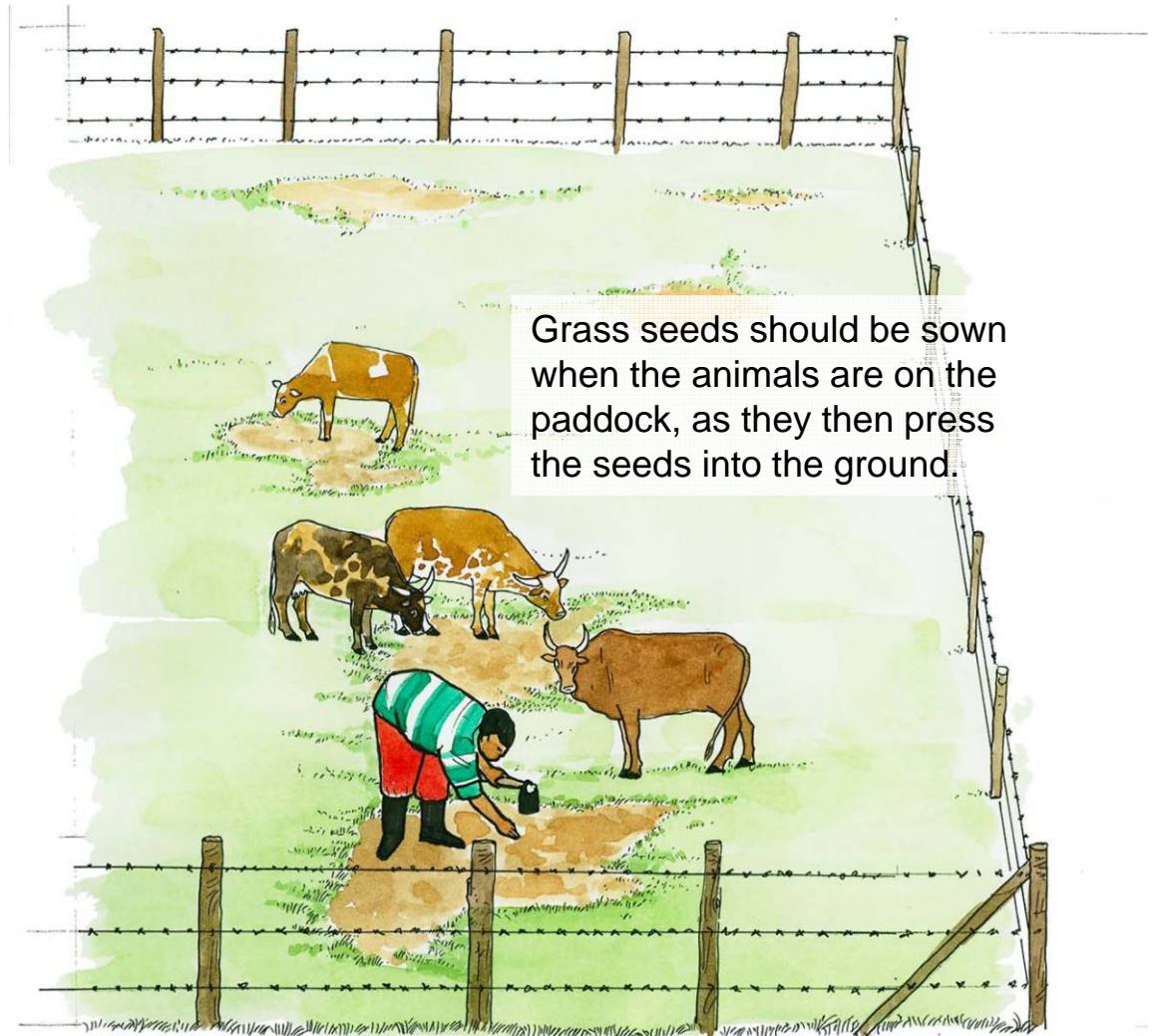
Improving grazing pastures

Replanting new pasture:

- › Offers the opportunity to use a diverse mixture of plants.
- › Involves high costs.

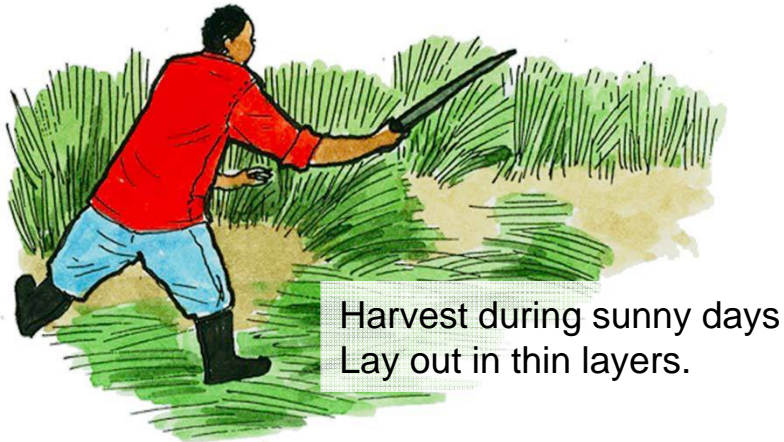
Resowing and changing management of existing pasture:

- › Involves lower costs.

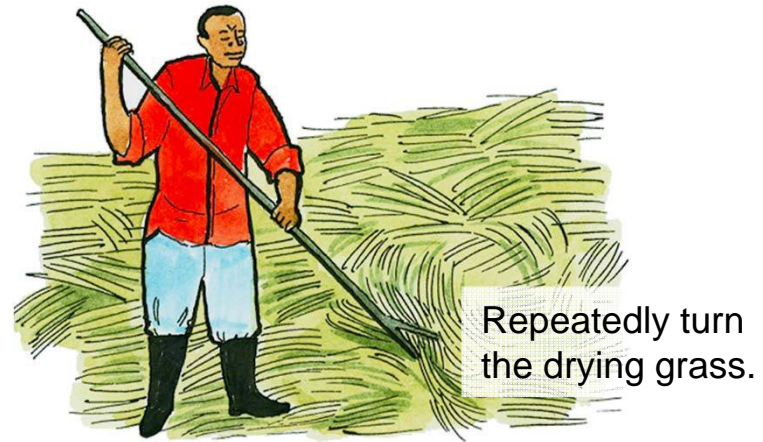


Hay making process

1. Harvesting the grass



2. Drying



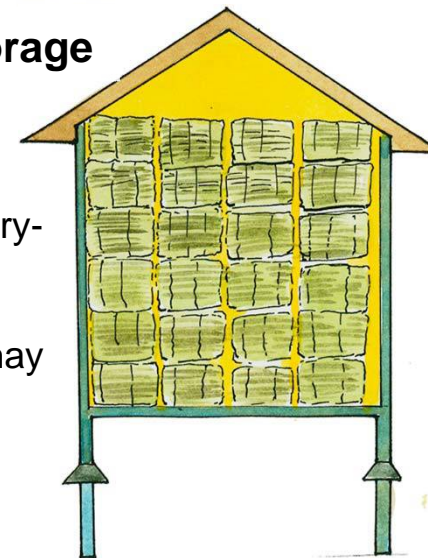
3. Chopping and bundling



4. Proper storage

Store in a granary-like structure.

Make sure the hay cannot get wet.



Silage making process

1. Harvesting



2. Chopping and filling



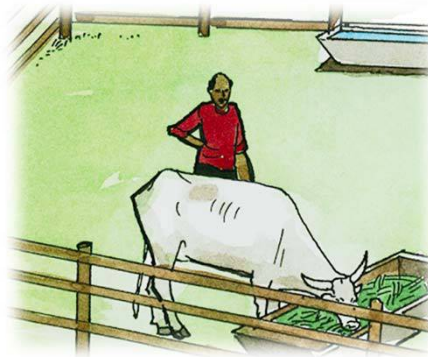
3. Pressing out air before covering



4. Trampling after covering



Animal health management: 3-step approach



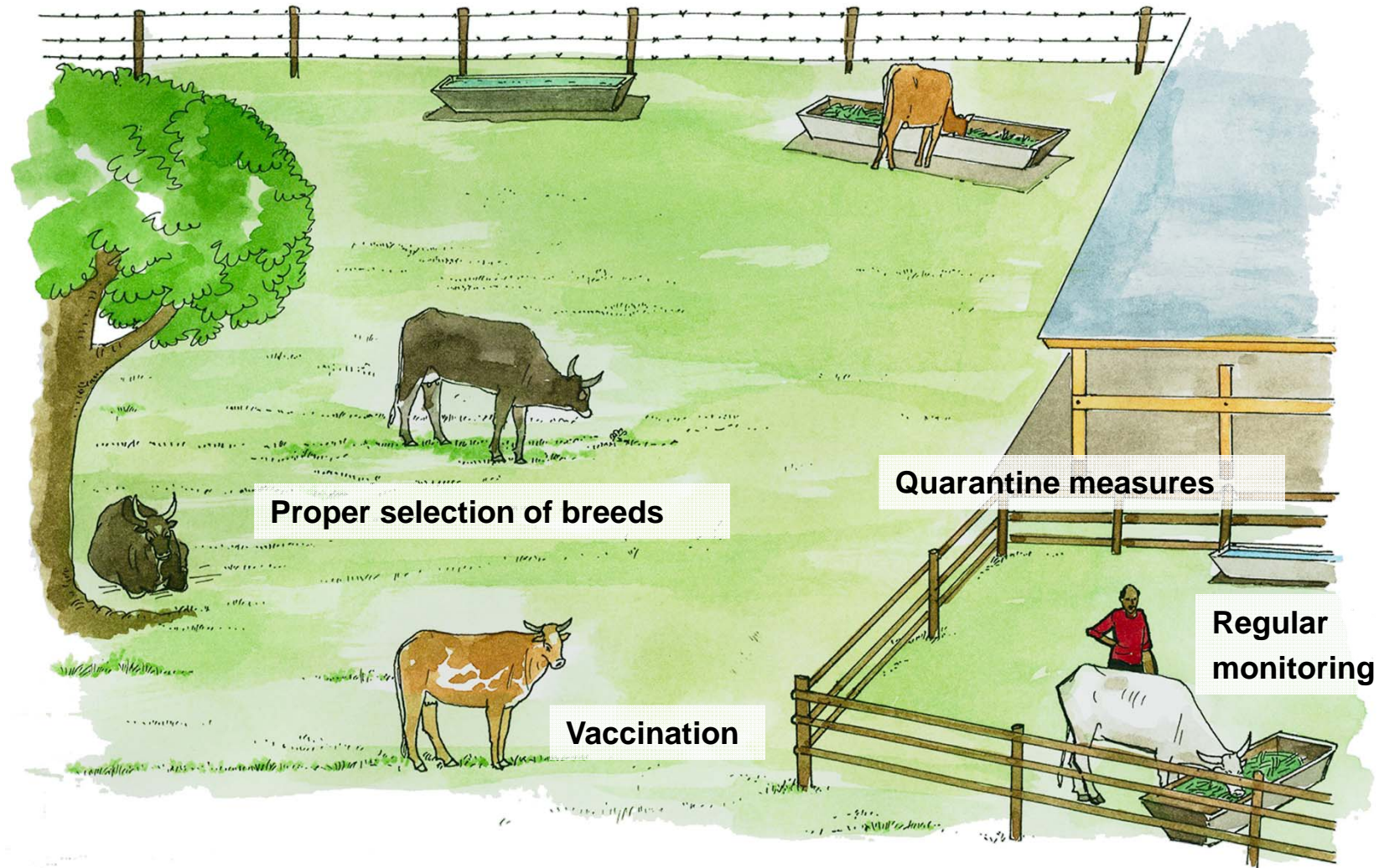
**3rd step: Direct control
(treatment of the animal)**

2nd step: Provide good growing conditions

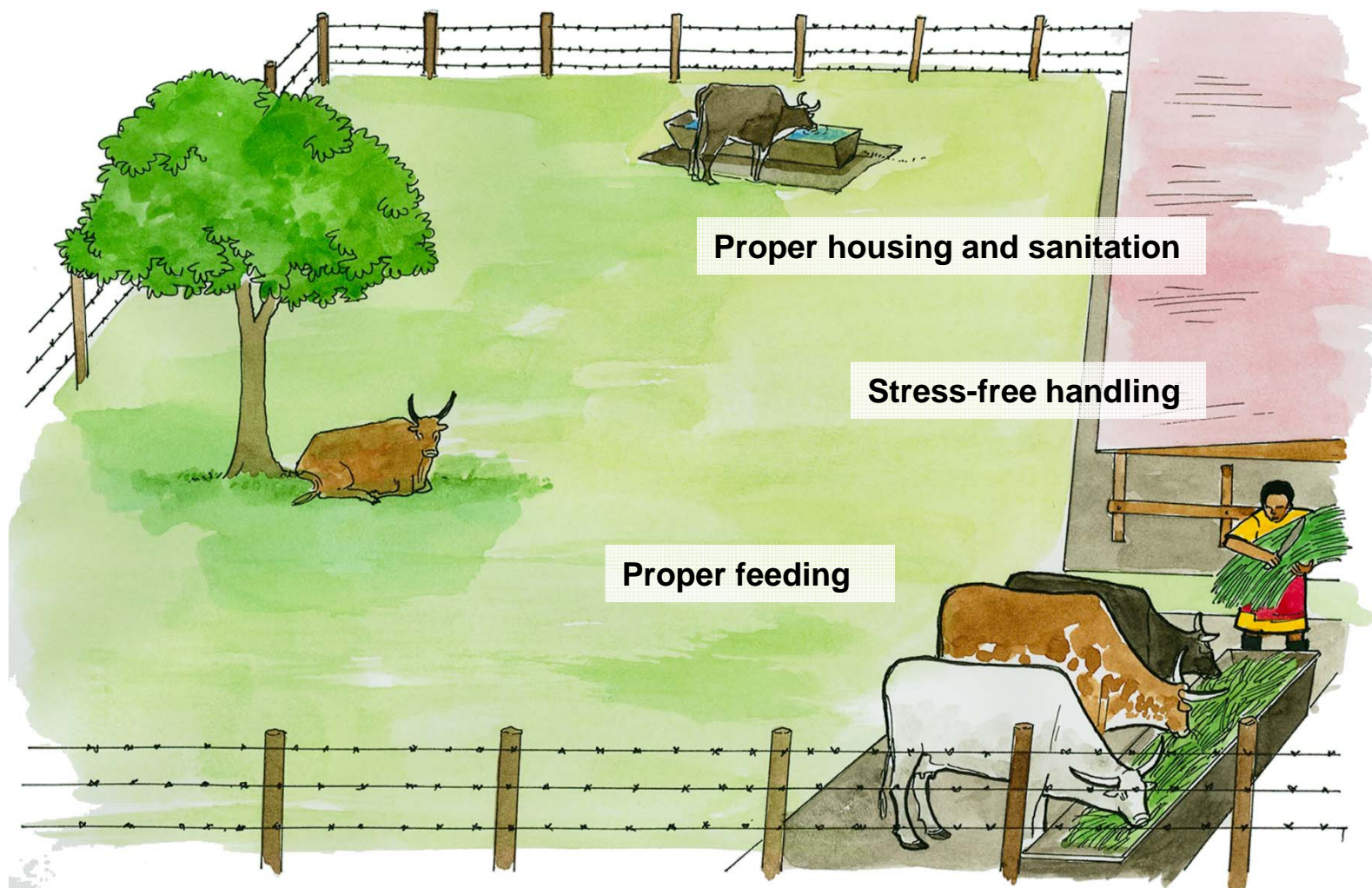
1st step: Prevent introduction and multiplication of infections



Preventive measures (1st step)

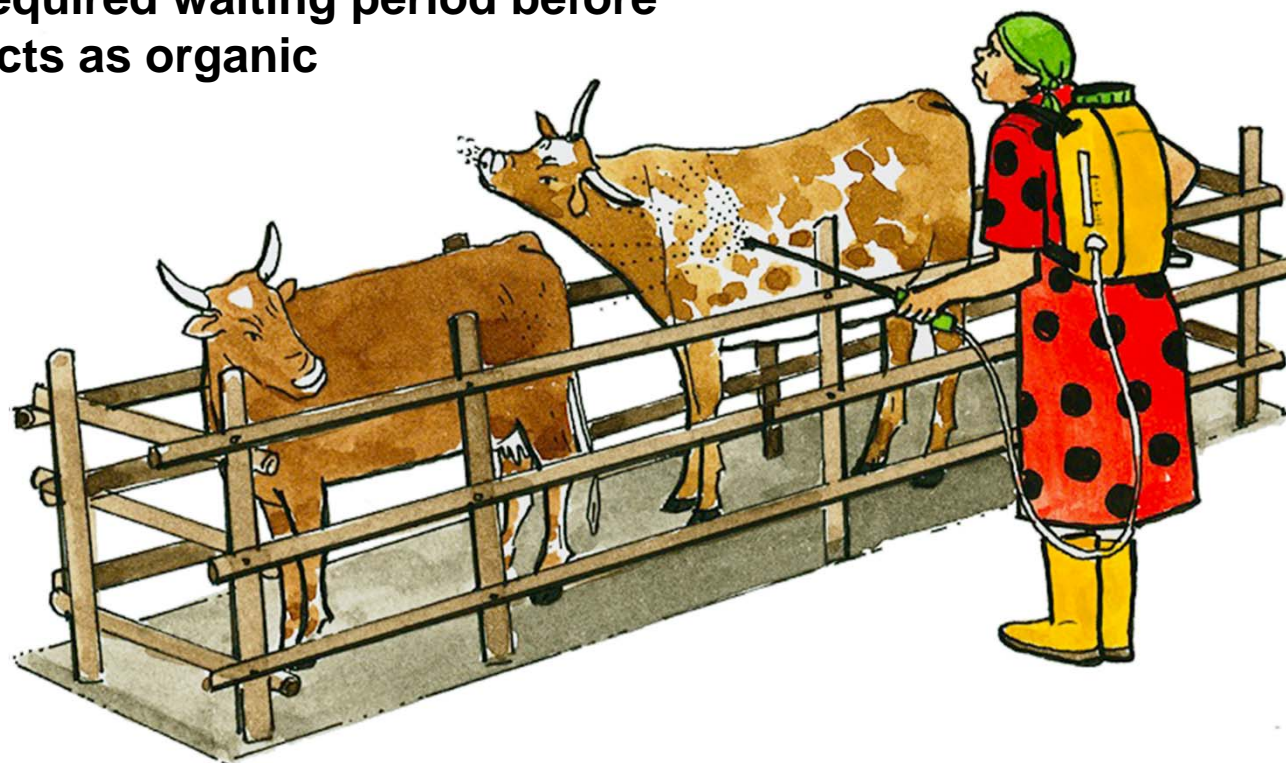


Good growing conditions (2nd step)

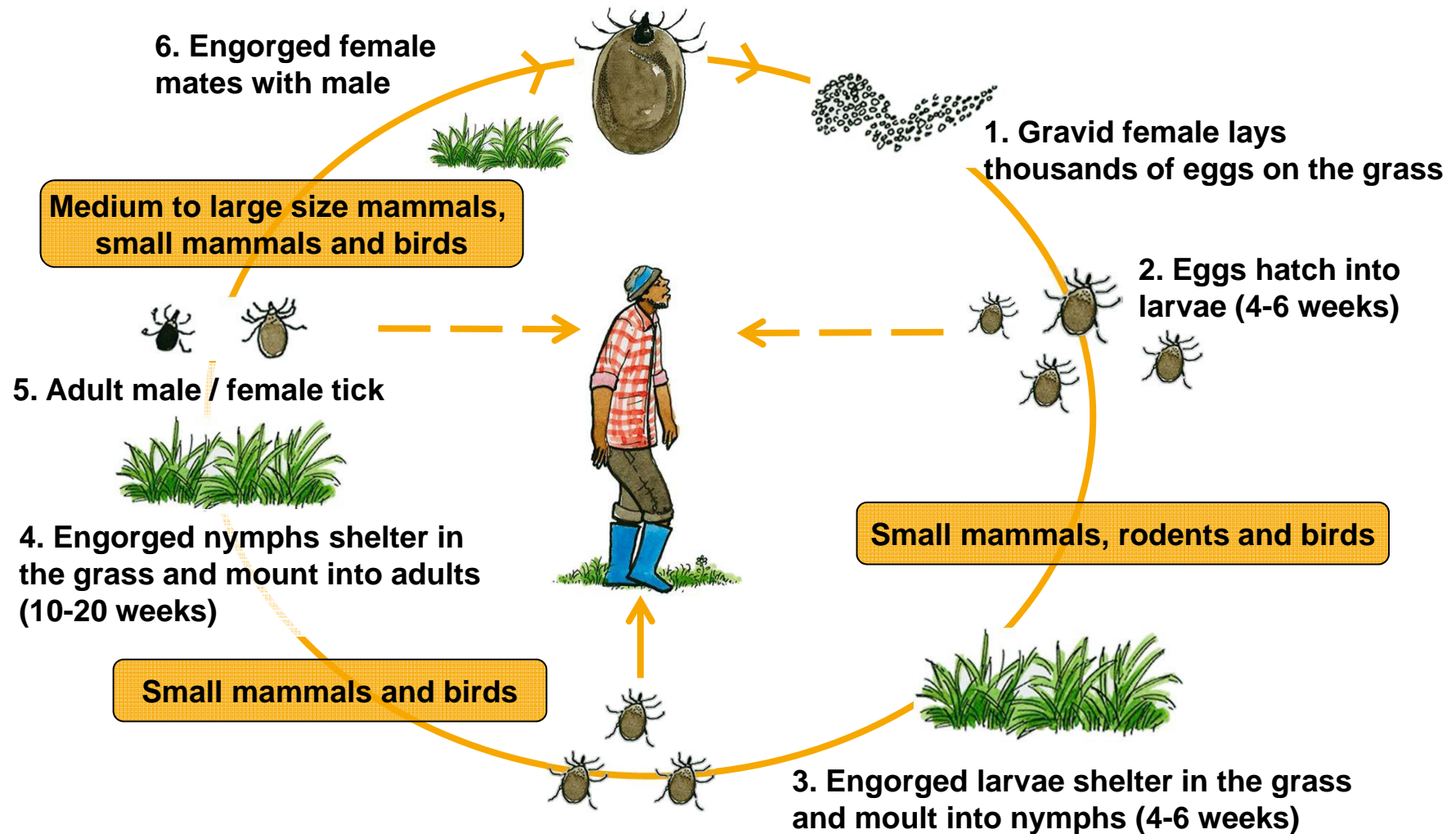


Direct treatment (3rd step)

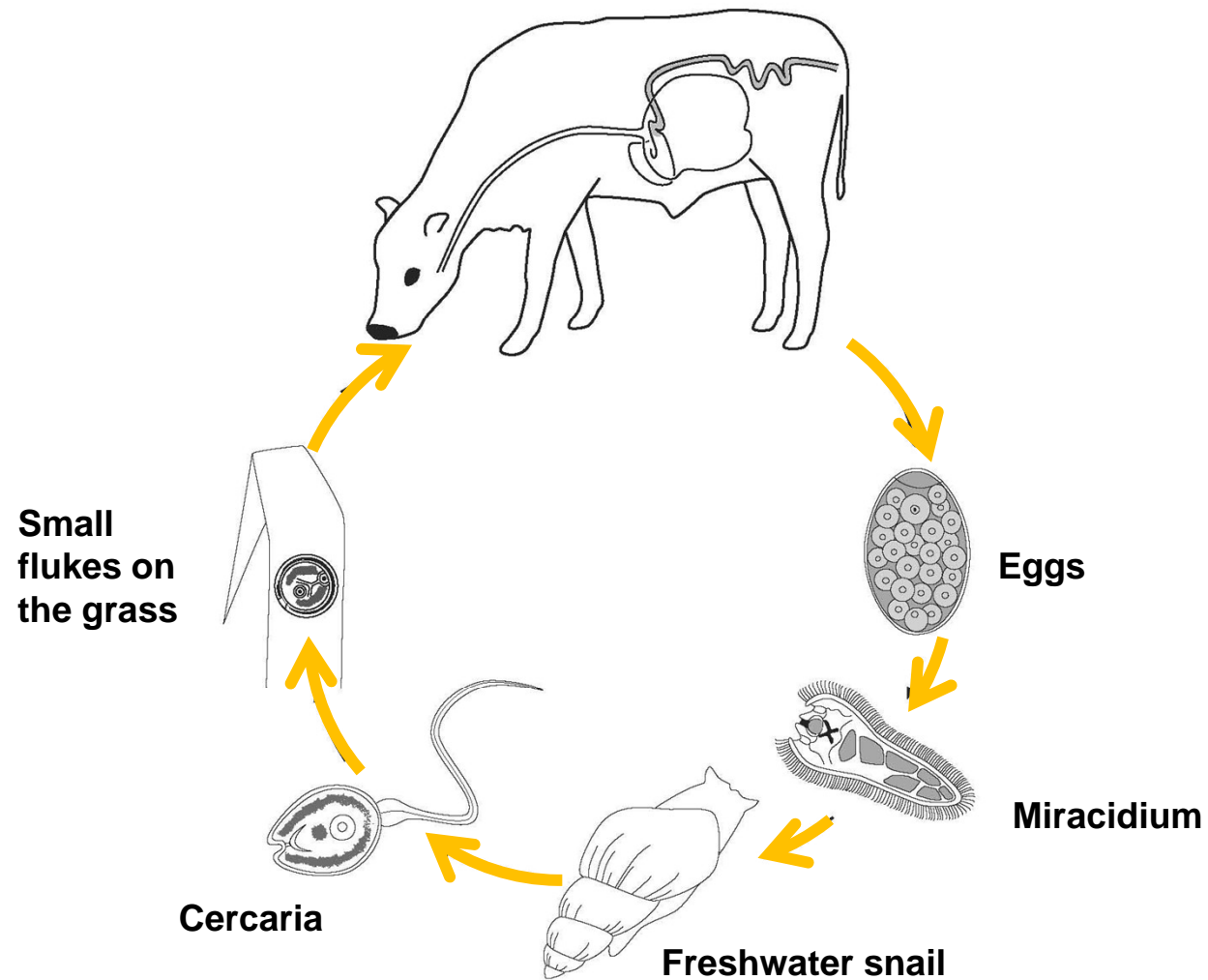
- › In case preventive measures are insufficient
- › Treatment with chemical drugs and antibiotics only in case of infection
- › Stick to the required waiting period before selling products as organic



A three-host tick lifecycle



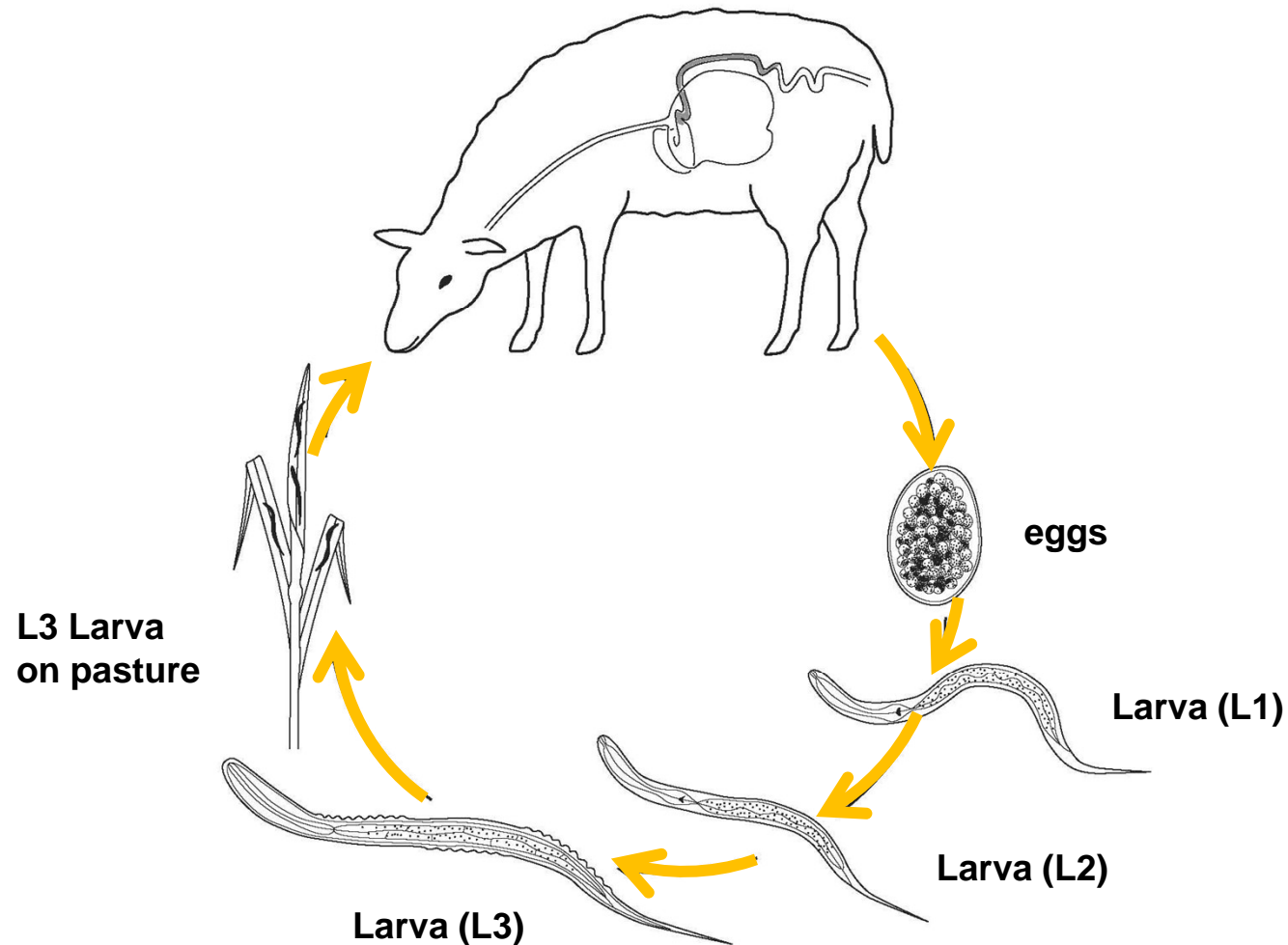
Life cycle of the giant liverfluke



© by FibL



Life cycle of gastrointestinal nematodes



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