SLM12 Conservation agriculture

With practicing conservation agriculture you can expand the yield.

Farmers recognize that their yield is becoming less and less when the soil gets poorer. You can use conservation agriculture to prevent a poor soil. It bases on three ideas: 1. You should always disturb the soil as less as possible to prevent eroding. 2. You should always rotate the crop with legumes, which help the soil to get nitrogen. 3. You should provide soil cover, so the soil isn‘t staying bare after harvesting.

Practising conservation agriculture

To start off, you make small planting pits. Make sure to maintain this every year. The pits should be 15 centimetres wide, 30 centimetres long and 15 centimetres deep. Let a distance of 70 centimetres between the pits and 90 centimetres between each row.

You can also rip the field with oxen. Ripping means, that you have make little openings in the soil without ploughing it. Therefore, you just disturb the soil in the ripped lines. The space between will not be touched. This leads to a better soil structure but the organic matters stay in the field at the same time. After this you add fertilizer to the ripped lines and cover them with some soil. You can start preparing the field in the dry season to make sure that the plants can grow in the first heavy rain.

Rotate crops every year

Another thing in conservation agriculture is to rotate the

crops in every season so that pests and diseases minimize and keeping the soil fertilized. For example, after the maize harvest you should grow legumes like soya or groundnuts and then in the next season cash crops like cotton.

Cover the soil with mulch over the year. This will protect your field from eroding by heavy rain. With the time the mulch covers and compost to organic matter which will give the soil fertility.

Another way is to plant native trees on your farm. Faidherbia trees catch nitrogen from the air and transmit it along their roots. The faidherbias are also called fertilizer tree. In the growing season their leaves fall down and give the soil nutrients. Because of the leaves falling down the ground, sunlight can shine trough to the crop. The deep roots of this tree stretch until the underground water, so it doesn‘t need moisture or nutrients from the top soil.