

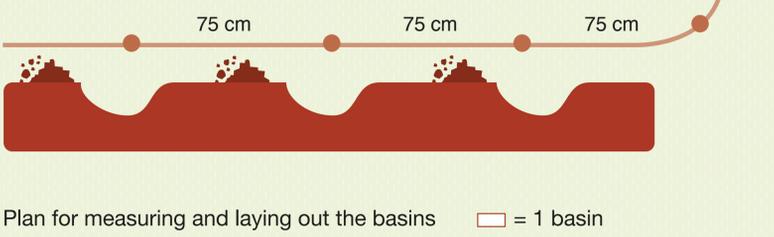
CONSERVATION AGRICULTURE: STEP-BY-STEP



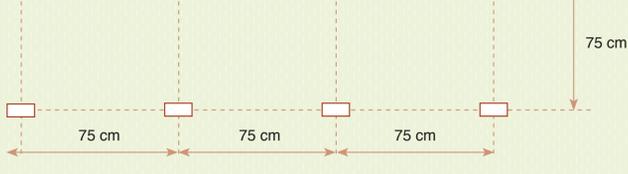
CONSERVATION AGRICULTURE: FOOD SECURITY IN LESOTHO FOR A CHANGING CLIMATE

STEP 1: Field layout

- Spacing between basins may differ among crops.
- For maize, basins need to be dug every 75 cm in each line/row.
- Different lines should be separated by 75 cm.
- In dry areas, spacing could go up to 90 cm between basins and rows.
- Tie knots at 75 cm apart on a line to mark basin intervals.
- Layout a line with clearly marked spacing points for basins within the row.
- The next row is laid out 75 cm away using a homemade meter stick.



Plan for measuring and laying out the basins = 1 basin



When using mechanical Conservation Agriculture planters, the distance between rows is the same as conventional farming: Maize and Sorghum, 90 cm between rows; Beans, 60 cm between rows.

STEP 2: Digging the planting basins

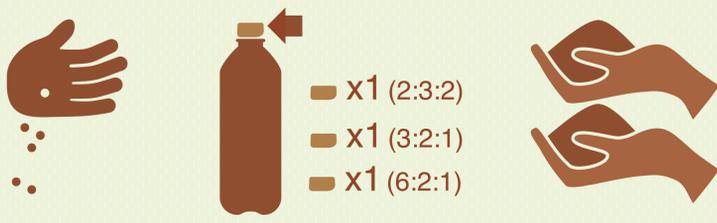
(July - September)



The basins are 15 cm long x 8 cm wide x 10 cm deep (if using compost, basins can be 15 cm deep).

STEP 3: Adding fertilizer and/or compost

(September - November)



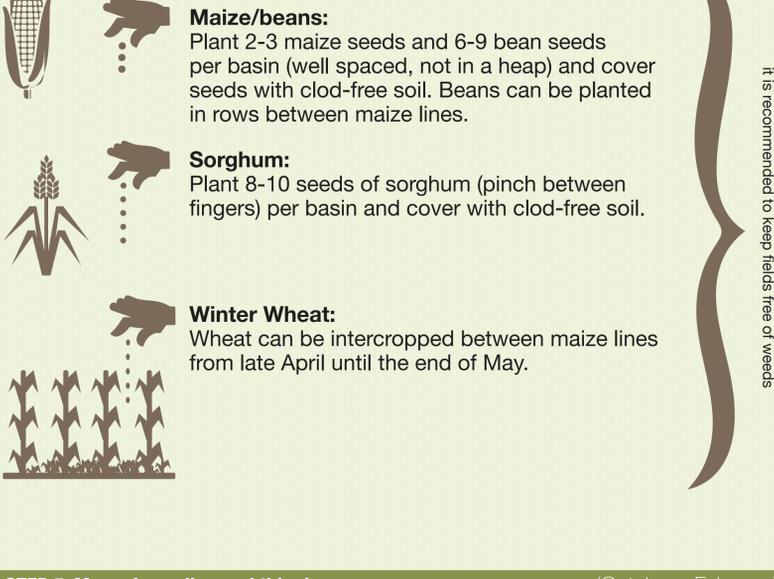
Fertilizer is banded by hand in the bottom of the basin and covered with soil

Measured in coca-cola caps (1 litre bottle caps), a minimum of 1 cap up to a maximum of 3 caps is needed per basin for fertilizers 3:2:1, 2:3:2 and 6:2:1

Compost application: add 1 or 2 handfuls of compost in the basin and cover with soil

STEP 4: Planting

(September - November)



Maize/beans: Plant 2-3 maize seeds and 6-9 bean seeds per basin (well spaced, not in a heap) and cover seeds with clod-free soil. Beans can be planted in rows between maize lines.

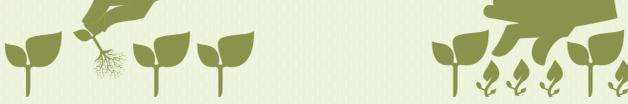
Sorghum: Plant 8-10 seeds of sorghum (pinch between fingers) per basin and cover with clod-free soil.

Winter Wheat: Wheat can be intercropped between maize lines from late April until the end of May.

It is recommended to keep fields free of weeds

STEP 5: Manual weeding and thinning

(October - February)



Thinning out to 2 plants per basin, 2-3 weeks after germination

First weeding: as soon as weeds start emerging



Second weeding: 4-6 weeks after crop emergence



Proper weeding of your land results in higher crop yields, which means more food for your family

STEP 6: Top dressing for maize and sorghum

(January - February)



Top dress with Nitrogen (N) fertilizer when maize or sorghum crops have reached knee height (not for beans)

When top-dressing, use a minimum of one (maximum two) heaped coca-cola caps per planting basin

STEP 7: Planting cover crops

(February - May)

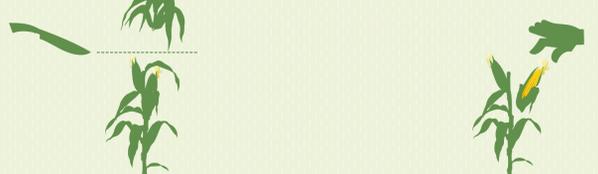


Grazing vetch, Oat and Wheat: Spread Grazing vetch and Oat seeds (February-March) or Wheat (April-May) after tasseling, when plants have already formed cobs.

Grazing vetch is one of the best options to provide cover, suppress weeds and improve soil quality. It decreases need for nitrogen fertilizer and is sustainable because it is self-seeding. It can stand light cutting for fodder or grazing in the early spring, allowing for flowering and seed formation in summer (i.e. once it is planted, there is no need to buy seeds again).

STEP 8: Harvest

(May - July)



Cut off the tassel for livestock feed

Harvest the cobs and leave stalks standing in the fields



Cut and spread stalks in the field between rows

Livestock integration

Animals should not be allowed to eat the organic matter in the fields. The presence of cattle in the fields also contributes to compact the soil and this should be avoided. 30-50% of the crop residues can be used to stall feed the animals.



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