



LAND USE PLANNING

CONSTRUCTION OF STRUCTURES

Terrace construction

The following is a guide to the construction of terraces and storm water drains, using implements commonly found on sugarcane farms.

The examples outlined are well tried methods, but they can be adapted by growers to suit their own conditions.

SLOPES OF UP TO 15%

Using a 2-furrow reversible disc plough (see Figure 25).

SLOPES STEEPER THAN 15%

Using a blade terracer or bulldozer

1. The first cut is taken with the blade tilted into the slope and its upslope corner on a line 'B', which is 3 m upslope from the pegged grade line 'A'. Soil is thrown down the slope.
2. For cut 2, the blade is tilted so that it removes the bank left by cut 1 and dumps the loose soil into the cut made.
3. Cut 3 moves the soil heaped by cut 1 further down the slope and deepens the channel.
4. Cut 4 moves the soil heaped by cut 2 downslope into the cut left by 3.
5. Cut 5 moves the heap left by cut 4 onto the previous heaps.
6. Cut 6 deepens the channel, forming a heap of loose earth downslope of the blade. The blade is tilted so that the base of the channel is angled into the slope slightly.
7. Cut 7 removes the high bank left by cuts 4 and 6.
8. Cut 8 commences with the upper edge of the blade running along line 'B' and, followed by cuts 9 and 10, moves soil heaped by cuts 5, 6 and 7 progressively down the slope to form a cambered road.

On very steep slopes it may be necessary to work downhill at first, due to excessive crabbing of the tractor. This results in an improved bench terrace. A shallow layer of soil is borrowed from the field up to 17 metres above the road line and moved downhill onto the road line pegs. This provides a bank on which the tractor can work across the slope to shape the road and channel.

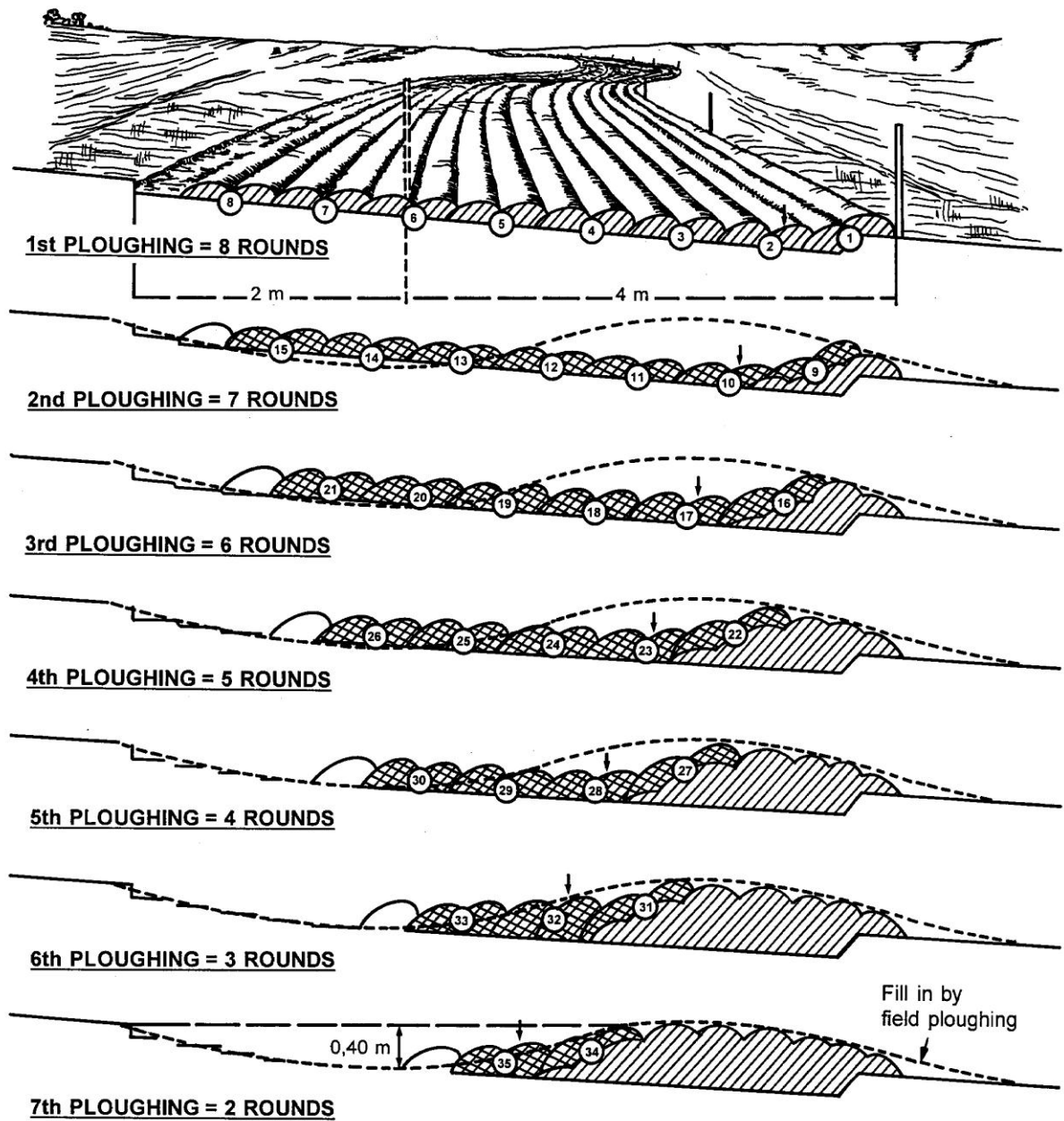


Figure 25. Method for terrace construction, ploughing from the upper side only.

Method after setting channel stakes: set a second row of stakes at 15 m intervals, 4 m below channel stakes. This row marks first ploughing. Use a two-furrow reversible plough.