

CHAPTER 3. SEEDBED PREPARATION

3.3 TECHNIQUES OF PLOUGHING

3.3.5. METHODS FOR MAKING FINISHING FURROWS

INTRODUCTION

Finishing furrows are important to ensure that the field is well levelled and that no deep channels are left which would be susceptible to erosion. A single furrow is made after "gathering" the field whereas a double furrow is used to finish the centre of the field after "casting".

SINGLE FINISHING FURROW WHEN "GATHERING"

When ploughing using the "gathering" pattern, the finishing furrow will be at the edge of the field. This is also the case when using a reversible plough.

As ploughing approaches to about 2 metres from the edge of the field, correct the direction followed by the plough so that the final strip has sides parallel to the field border.

The last three or four runs are made at a progressively decreasing depth of work (Fig.1). The finishing furrow should only be about 10 cm deep with a narrow width of cut. These adjustments are achieved on chain pulled ploughs, by adjusting the point of attachment to the regulator as already described in the **Module 3.2.2**.

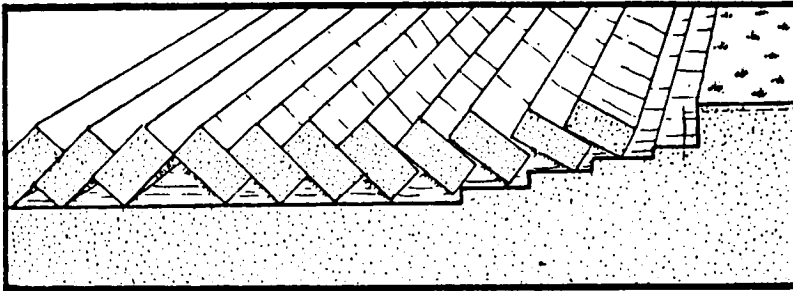


Fig. 1 Make the final runs when "gathering" at a progressively shallower depth. The finishing furrow should be about 10 cm deep and have a reduced width of cut.

Source: AETC, 1986

DOUBLE FINISHING FURROW WHEN "CASTING"

When ploughing using the "casting" pattern, the finishing furrow will lie in the middle of the field. A neat furrow can only be achieved if the final unploughed strip has even and parallel sides.

Adjust the direction of ploughing very carefully as the strip is reduced to about 3 metres in width. Make sure to leave a final parallel strip 160 cm wide (Fig.2).

NOTE: This strip is wide enough for the 4 finishing runs in each direction with a 20 cm plough. However, if the plough used is of a different size, the finishing strip should measure 8 times the working width of the plough.

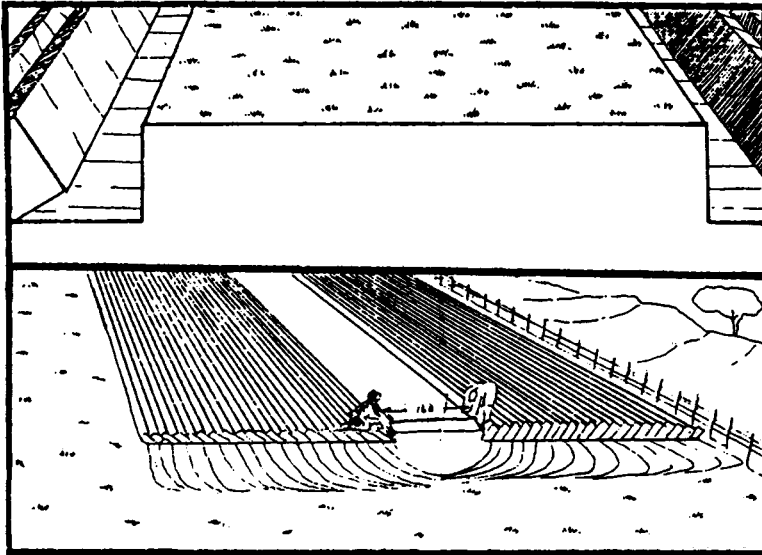


Fig. 2 Carefully adjust the direction of ploughing to leave a final strip 160 cm wide and with even parallel sides.
Source: AETC, 1986

Three runs are now made in each direction, progressively reducing the depth of work by adjusting the point of attachment to the regulator. The soil profile in the field should then be as shown in Fig.3.

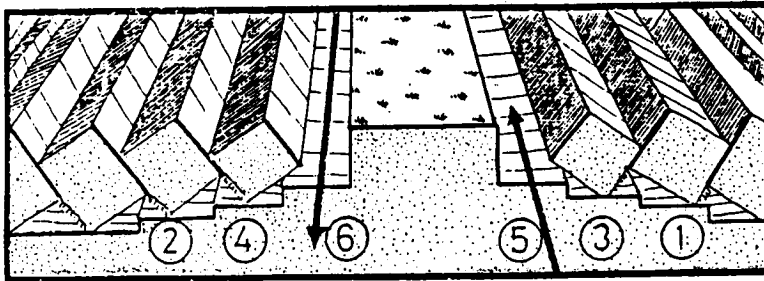


Fig. 3 Three runs are made in each direction at a progressively shallower depth. These runs are marked (1) to (6) in the diagram.

Source: AETC, 1986

The run (7) is made at a depth of only 10 cm and should leave a narrow unploughed strip 20 cm wide with even and parallel sides (Fig.4).

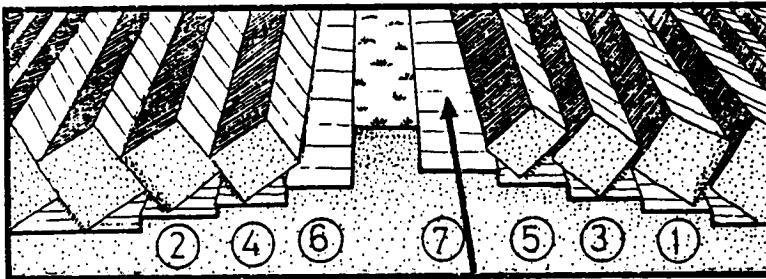


Fig. 4 Run (7) is made at a depth of 10 cm and leaves an unploughed strip 20 cm wide for the double finishing furrow.

Source: AETC, 1986

The first run of the double finishing furrow now splits the remaining strip down the centre. This is run (8) and is illustrated in Fig.5.

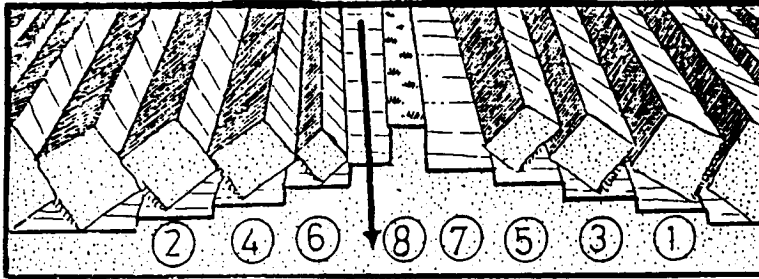


Fig. 5 Run (8) splits the remaining narrow strip. It is also ploughed shallow at a depth of only 10 cm.
 Source for Figs.5 & 6: AETC, 1986

Now the second and final run (9) of the double finishing furrow is made. The plough should be set slightly deeper than for run (8), at a depth of about 13 cm. The objective is to plough the remaining strip together with biting a little deeper into part of the furrow left after run (7). This is shown in **Fig.6**.

The field should thus be left with a shallow finishing furrow down the centre which may later be easily levelled with the harrow.

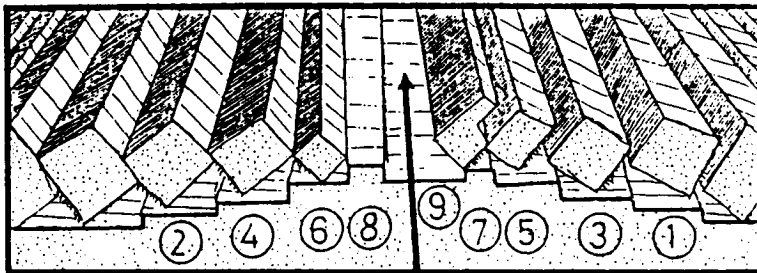


Fig. 6 Run (9) completes the finishing furrow. The plough should be set slightly deeper at about 13 cm depth and undercuts the remaining narrow strip and part of the furrow left after run (7).