

Parallel Strip Cropping between Nonparallel Contour Banks

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In broadacre cultivated areas most contour bank systems are not parallel. This creates difficulties for farmers wishing to adopt practices such as controlled traffic farming or inter row cultivation. Figure 1 provides an example of a non parallel contour bank layout in a broad acre farming area.

Mason et al (1995) in another paper presented at this conference describe a system of growing crops in parallel furrows in paddocks with non parallel contour banks. This paper describes yet another approach which could be taken.

In southern Queensland and northern New South Wales, strip cropping is a well accepted erosion control practice on floodplains subject to erosive flooding. The practice has rarely been used as an erosion control measure on upland areas. Figure 1 shows how strips of crop could be grown parallel to contour banks. The contour bank would be in the middle of each cropping strip.

Ideally a summer / winter crop rotation would be used so that at any time half the contour bay would be protected from erosion by a growing crop. Better use of rainfall could occur when runoff from the top strip in a contour bay may be absorbed by the bottom strip in the bay. This situation could arise when the top strip was under fallow and the bottom strip was under crop.

How to use the irregular areas that do not fit into the parallel pattern requires some innovative thinking. They could be used for growing some type of speciality crop. An alternative use for these areas would be for growing grass or to incorporate them into one of the strips above or below them. This would mean that only every second strip would then be parallel. Another option would be to use wide machinery to cultivate the parallel strips with a smaller unit used to "mop up" the irregular areas.

Potential problems associated with the use of the proposed system are as follows:

- difficulties associated with precisely following the alignment of rows around sharp bends
- chemical application where different crops are grown in adjacent strips

There may be opportunities to modify some layouts at minimal cost to improve their workability. eg the sharp bends where contour banks cross drainage lines in figure 1 could be minimised by altering the alignment of the contour banks crossing the drainage lines. Such action would require careful attention to levels and would require an alteration to the specifications of the contour banks to be modified.

The proposed system would provide farmers with an opportunity to adopt controlled traffic farming practices, to achieve an increased level of erosion protection and to make better use of rainfall.

References

Mason, R.M., Titmarsh, G.W. and Sallaway, M.M. (1995). Making controlled traffic work in non parallel contour banks. *A paper presented to the National Controlled Traffic Conference, 13-14 September 1995, Capricorn International Resort, Rockhampton.*

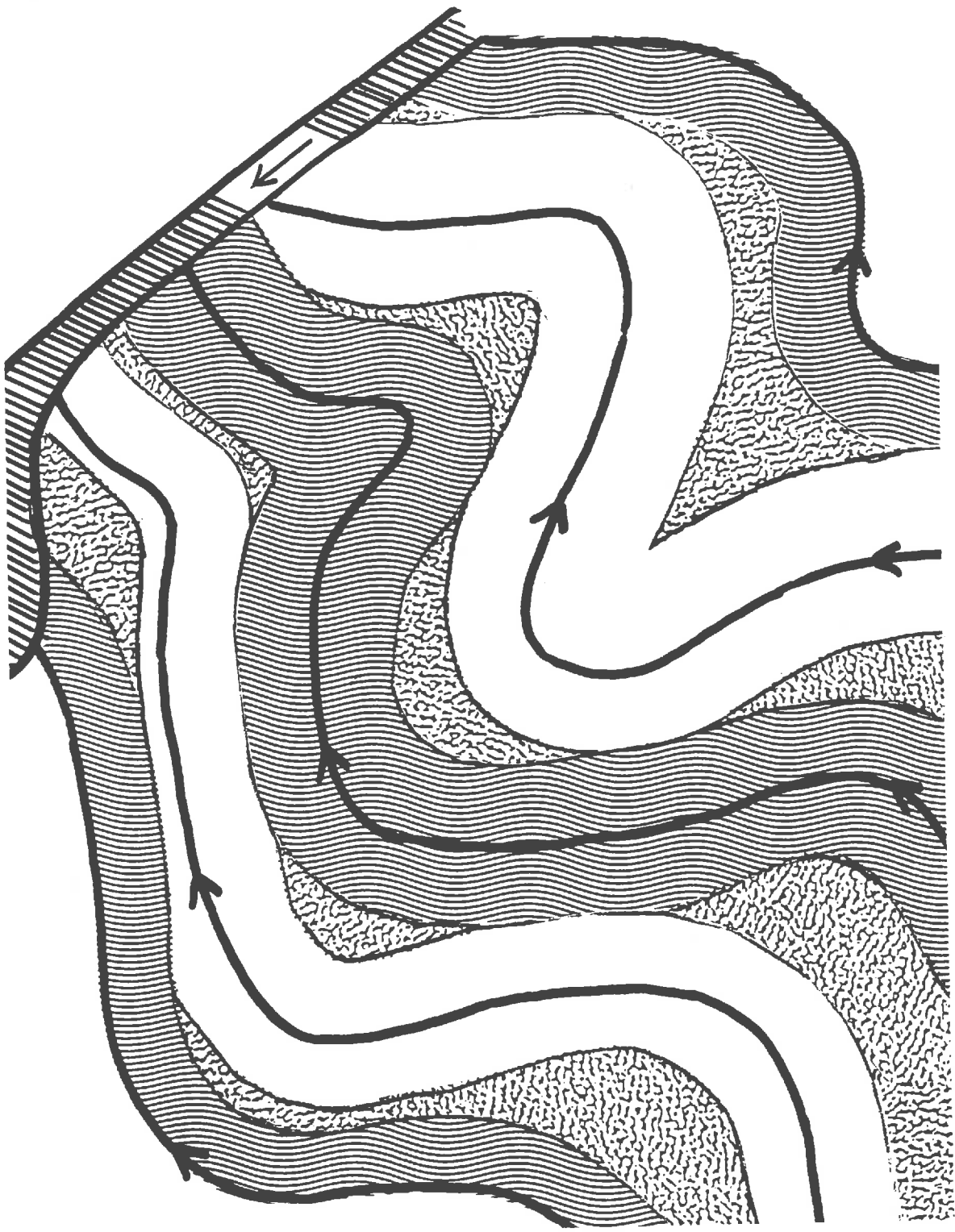


Figure 1 Parallel strip cropping between non parallel contour banks