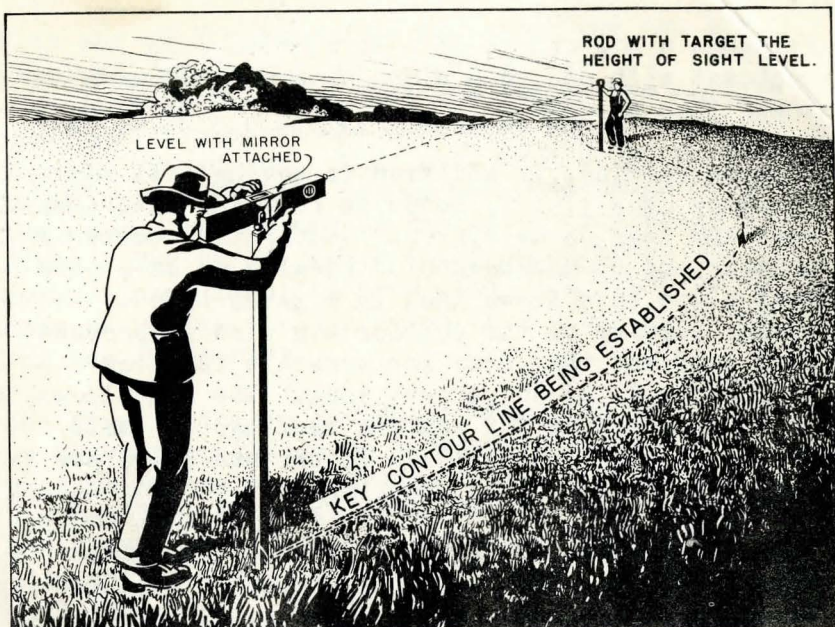




BOOST YIELDS BY CONTOUR FARMING

(A FARMERS' GUIDE IN LAYING OUT KEY CONTOUR LINES.)

Farmers who change from the customary up-and-down-hill straight line to contour cultivation to save their soil find their crop yields increase materially. In fact, many farmers report corn yield increases ranging from 10 to 15 bushels per acre.

In fitting the farming pattern to the natural lay of the landscape farmers get their crop rows on the level. Water stays in each furrow or implement mark and soaks into the ground. This method of farming not only conserves water for plant growth but also keeps it from running down hill and taking the topsoil with it. Contour furrows

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resemble a hog trough on a level floor, in contrast with one on a slope with one end much lower than the other.

Contour farming, in addition to saving soil and boosting crop yields, saves on fuel and cuts down wear and tear on machinery. Comparative tests of contour and up-and-down-hill plowing on an 8 percent slope have shown that in a given time a farmer plowing on the contour can plow 10 percent more land and that acre for acre his fuel consumption will be 10 percent less. The AAA allows 15 cents per acre for contour seeding, 20 cents for contouring intertilled crops, and \$1.00 per acre for contour strip cropping.

Farmers who wish to establish contour lines in their own fields don't need any special skill or expensive equipment. Most of the simple equipment needed can be improvised from materials already in the workshed.

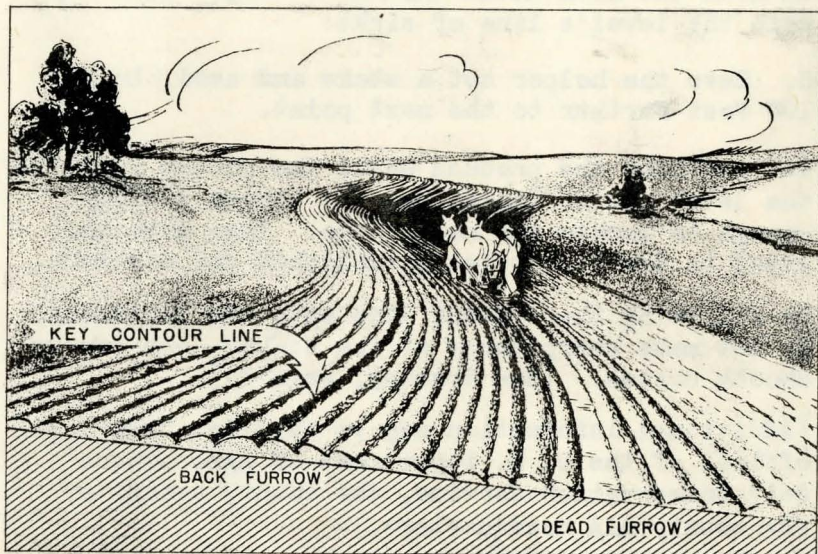
The first necessity is some sort of a leveling device. Dependable hand levels, which have been available on the market at prices from \$2.50 up, have proved convenient. (See illustration on page 4.)

A farmer can make an efficient device from an ordinary carpenter's level by attaching a small mirror on the right side at a 45 degree angle immediately in front of the "bubble" tube. The farmer sights along the upper right hand edge of the carpenter's level and at the same time adjusts the device. He observes the bubble's reflection in the mirror to make sure the instrument is on the level.

The rigged up carpenter's level can be mounted on a pole or board. (See cover illustration.) The bubble is centered by moving the stake forward or backward.

With any of the suggested equipment two men are required for laying out the contours. The first one operates the level and the second one carries the "rod" to locate the points on which contour line is staked out. The "rod" is a board or pole on which a target is placed the same height from the ground as the top of the level from which you sight. The target makes sighting easier. In event a hand level is used, the "rod" must be the same height as the eye level of the person operating the instrument.

The first thing to decide is where the key contour, or base line, should be located. On relatively uniform slopes a few hundred feet long one key contour line about halfway down the field probably would be adequate to establish the direction of plowing, seed bed preparation, planting and cultivation.





If the slope is very long or irregular, more key contours would be needed. In such instances the first key contour probably should be laid out from $1/4$ to $1/3$ of the way down the hill.

Following are the steps in the field operation (see cover drawing):

1. Set the level on the location of the proposed key contour line, preferably at one end of the field. Point the instrument in the direction the contour line is likely to run and center the bubble.
2. Send the helper, who carries the "rod", in the direction of the line about 100 feet (in some cases 25 to 50 feet). Have the helper hold the "rod" straight up, or plumb, and the level man sight on the rod's target. Direct the helper up or down the hill until the rod's target lines up with the level's line of sight.
3. Have the helper set a stake and send him on 100 feet farther to the next point.
4. Continue the process until the person operating the level can no longer see the target plainly enough to locate the next stake. Then move the level to the last point established and continue.

In following the contour line with the implement, do not make sharp turns at the stakes, but run in smooth curves. (See drawing, page 3.)

(Additional information may be obtained from local offices of the U. S. Department of Agriculture Soil Conservation Service, the county agent, or the county AAA headquarters.)