

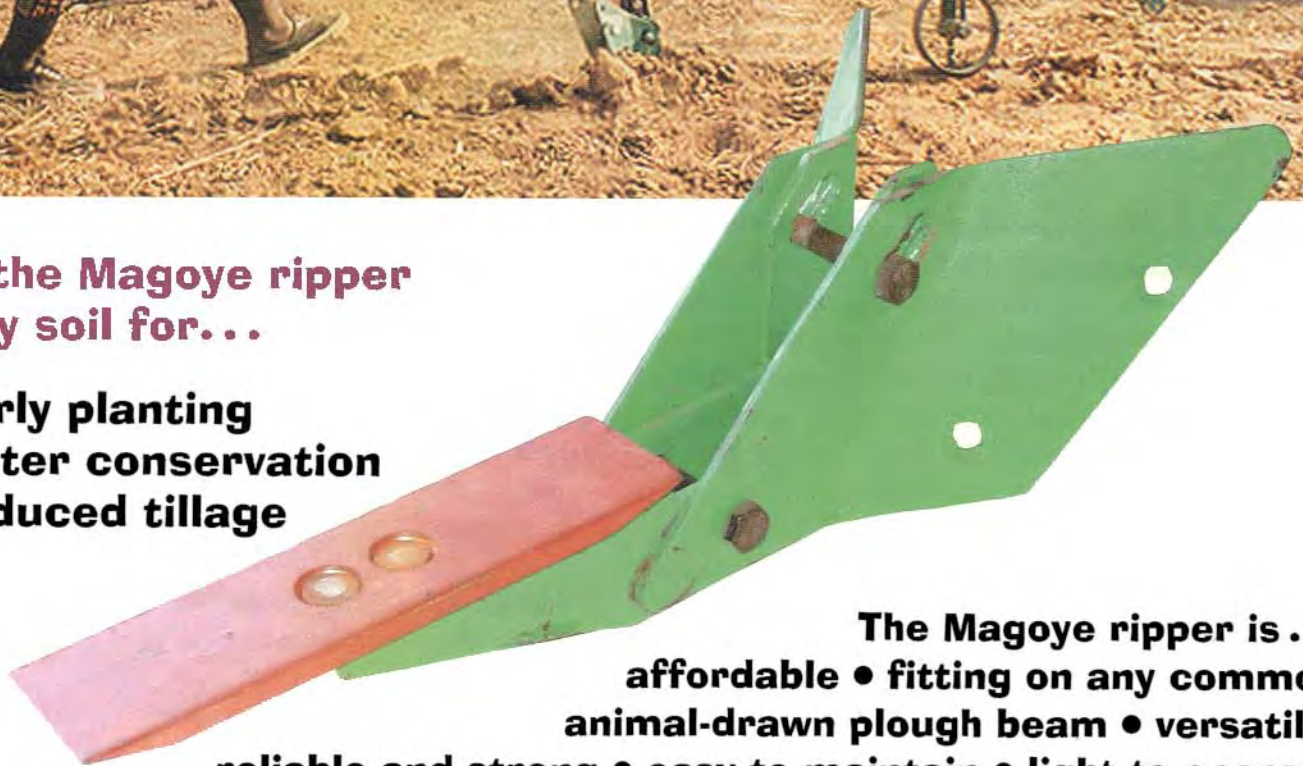
THE MAGOYE RIPPER

an animal drawn
tool for
breaking up soil



Use the Magoye ripper
in dry soil for...

- ✓ early planting
- ✓ water conservation
- ✓ reduced tillage



The Magoye ripper is ...
affordable • fitting on any common
animal-drawn plough beam • versatile,
reliable and strong • easy to maintain • light to operate
by male and female farmers • more than twice as fast as the plough

With the Magoye ripper you can ... replace the plough • reduce labour
during planting • plant timely, at correct depth and in parallel lines
• conserve soil moisture • disturb less soil • improve soil quality management
... start **Conservation Farming** on your farm!

When using the Magoye ripper, make sure that • the soil is not wet nor too hard
(e.g. winter rip just after harvest) • the weeds are under control

You get better results with the Magoye ripper with • well-trained oxen
• a proper hitch to attach the chain • a chain as long as 3.5 meter • a sharp tine

HOW TO USE THE MAGOYE RIPPER IN SHORT

1: Always use the Magoye ripper in dry soil

Start ripping as soon as possible AFTER HARVEST (May-June). This is WINTER RIPPING. Then the soil is not yet very dry and hard. Also, the oxen are still well fed and used to work. Try to finish all ripping BEFORE THE FIRST RAINS. Note that ripping in dry soil is much harder than in moist soil. Still you can reach a good depth (of not less than 20 cm) by repeated ripping in the same line. Remember: do not rip in wet soil.

2: Focus on regular work

Rip in straight or smoothly curving lines ALONG THE CONTOUR (so, not down the slope). Keep a CONSTANT DISTANCE between the lines. This distance is equal to the preferred crop row distance (for example 90 cm or 75 cm).

Learn to master the technique with patience and persistence. Inform yourself in the beginning by experimenting with different implement adjustments under different soil conditions. Try, observe and understand before calling yourself an expert.

Allow the oxen to get used too. Rip with one pair of oxen. Adapt the working depth to what the animals can pull. Do not force them, but gradually improve work over time.

3: Adjust the Magoye ripper for best results

Fit the Magoye ripper on the longest plough or ridger beam you can find. Always use a HITCH. This can be the common plough hitch or even better: an improved hitch (such as shown in the picture). Attach a LONG CHAIN (3.5 meter). Or connect two chains together. Normally, a longer chain gives an increased working depth. Use the yoke that the animals are most comfortable with. Often this is the ploughing yoke.

Remember: try not to work with a ripper that is running in a very steep position. This is mostly ineffective, makes work tiresome and increases wear and tear of the tine. That is why you need the hitch. Usually, connecting the chain to a LOW HITCH POINT gives best results. The ripper tine will then be less steep, but –if sharp- penetrate well into the soil and run stable. When starting a new ripping line you may need to help the tine digging into the soil by temporarily pushing the implement down on the handles. If during ripping the oxen stop on the way, lift up the ripper a bit before proceeding. You also may need to adjust the implement for a reduced working depth.

Have a proper WHEEL to STABILISE the implement. Do not set the wheel too much down. It restricts the ripping depth and puts too much pressure on the wheel causing the axle to wear quickly. On the other hand, if the wheel is too high up, it will just be hanging in the air. So try to set the wheel such that during work it just touches the surface of the soil most of the time.

4: Always keep the chisel tine sharp

It is very important to always work with a SHARP tine. Without sharpness the ripper cannot penetrate and not break open the dry soil. But if properly sharpened this will be easy. Always start ripping with a new or well-maintained chisel tine. Check the tine daily during the ripping season and

sharpen it before it gets too blunt. The tine can be re-sharpened with a grinding machine. Otherwise use a flat file. When sharpening make sure the tine end gets back its original STRAIGHT SLOPING ANGLE and ends in a SMOOTH CUTTING EDGE (which should be sharp but not razor sharp, as this would weaken the tip). Compare it with a new tine (or the unused other end of the same tine) to do it right. Do no longer use a tine that has worn more than 5 cm (2 inches), as otherwise the ripper *frame* will start wearing. Either, turn the tine and use its other end, or replace the tine for a new one. Be prepared -under the given hard and dry conditions- for much QUICKER WEAR than you are used to with ploughing (in soft moist soil).

5: Rip in the previous crop lines

If possible always rip IN THE SAME OLD CROP LINES. However, you may find that in certain cases you have to rip between the lines. This can for instance be when planting narrowly spaced crops or for inter-cropping. You can add lime and manure into the furrows immediately after ripping. Then just wait for the rains to come.

6: Plant directly in the ripped furrows

Hand plant into the ripped furrows in the recommended planting period once the soil is wet enough. You probably first need to clear the winter ripped furrows with the Magoye ripper. Maintain a regular planting distance within the furrows. If you also apply fertiliser make sure this will not stay in contact with the seed. COVER THE SEEDS and fertiliser with a THIN layer of soil. On a field without stover you best use a CULTIVATOR between the planting lines for seed covering (and weeding at the same time). Also a light harrow may be used (running across the planting lines). If the field carries stover (to remain as soil cover or mulch) a cultivator or harrow can NOT be used. In that case cover the seeds carefully with a hoe (or your feet).

Note: also a PLANTER equipped with SEED COVERERS can be used for directly planting into the ripped lines.

7: Manage the early weeds

Weeds must be controlled from the very BEGINNING OF THE SEASON, if necessary even BEFORE PLANTING. If not done timely, the weeds will easily overgrow the crop and drastically reduce the yield or even lead to complete crop failure.

Also new (virgin) land can be ripped, as long as it has first been cleared from the weeds in one way or another.



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Promoting Sustainable Agriculture