Controlling Weeds in Tree Plantings

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Overstory Issue 188 (about accelerated natural regeneration, or ANR) included information about weeding in forests. Here we share an excerpt on reducing competition with weeds.

The smaller tree seedlings or saplings [are], the more they benefit from weeding, especially during the rainy season. In the dry season, a weed canopy may help to protect small tree seedlings from desiccation, but this potentially beneficial effect must be weighed against the fire risk posed by the dried vegetation. Weeding around tree stumps is unlikely to be beneficial, since stumps already have deep root systems that extend well below those of herbaceous weeds.

Before weeding, tree seedlings or saplings should be clearly marked with brightly colored [pieces of cloth, poles, strips of plastic bag or ribbons] to make them more visible. This prevents accidental trampling or cutting during weeding. Weeding should first be concentrated around the marked trees, before clearing weeds from the rest of the site. Around small seedlings, it is better to hand-pull weeds than to use tools, as digging can damage seedlings' delicate root systems.

One weeding method [mentioned in the Overstory issue] is "lodging", i.e. flattening weeds with a board, rather than cutting them or digging them out. This does not kill the weeds immediately but each time the weeds grow back, they use up food reserves stored in their root systems. If weeds are flattened often enough, food reserves are eventually exhausted and the plants die. Lodging weeds does not disturb the soil surface and, by shading the soil, the flattened weeds suppress germination of light-dependent weed seeds. This technique is particularly effective against grasses and bracken fern.

Use a wide plank of hard but lightweight wood (about 5 x 25 x 130 cm [2 x 10 x 52 inches]). Carve out semicircles at both ends of the plank so that it can be used to flatten weeds growing close to tree saplings. Attach a piece of sturdy rope and a shoulder pad to both ends of the plank, making a loop, long enough to pass over your shoulders. Lift the plank onto the weed canopy and step on it with full body weight. Repeat this action, moving forward in short steps.

(For more information log on to http://www.fs.fed.us/psw/publications/documents/other/3.pdf). The method has been used to great effect in the Philippines to clear cogon grass (*Imperata cylindrica*) and accelerate forest regeneration on abandoned slash and burn sites there.

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