




# Oxalis weed in coffee

*Oxalis latifolia* (*Oxalis corniculata*, *Oxalis radicata*) Ubwunyuyi bwa nyamanza in Kinyarwanda language, Oseille or trèfle in French language

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 <p>Healthy fish-tail shaped leaves of <i>Oxalis latifolia</i> weed (photo by John Tann, CC BY)</p>	<ul style="list-style-type: none"> <li>Prevention is only needed if <i>Oxalis</i> – weed problems are known from the area and are severe.</li> <li><b>Avoid intensive cultivation</b> of other crops in coffee plantations as harvest of other crops allows <i>Oxalis</i> to thrive, and its bulbs are spread.</li> <li><b>Apply mulch</b> such as <i>Tripsacum gamagrass</i>, <i>Pennisetum Fountain grass</i> (15-20cm thick mulch layer)</li> <li><b>Mow repeatedly</b> many times as the <i>Oxalis</i> weed re-emerges</li> </ul>	<ul style="list-style-type: none"> <li><b>Look for small plants without short stem</b> but with 14-45 leaves. Each leaf is composed of 3 fish-tail-shaped leaflets linked to each other.</li> <li><b>The bulb in the soil</b> looks like a small whitish carrot (diameter: 1-2 cm)</li> <li><i>Oxalis</i> is only a problematic weed when occurring in masses and only in young coffee plantations.</li> </ul>	<ul style="list-style-type: none"> <li><i>Oxalis</i> leaves can be freshly eaten as salads, but only if coffee, other crops, or weeds around <i>Oxalis</i> were not treated with chemicals.</li> <li><b>Deep tillage to expose bulbs</b> to drought</li> <li><i>Puccinia oxalidis</i> fungus is a natural control agent; consult extension agency (Rwanda Agriculture Board) for its use to control <i>Oxalis spp.</i></li> </ul>	<ul style="list-style-type: none"> <li>Chemical control is only needed in rare cases of severe <i>Oxalis</i> growing and in very young coffee plantations</li> <li>When using a pesticide or botanical, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, pre-harvest interval, max number of sprays, restricted re-entry interval. Do not empty into drains and water sources.</li> <li>Always consult recent list of registered pesticides of RALIS in Rwanda</li> </ul>	
 <p>Leaves and flowers of healthy <i>Oxalis latifolia</i> (photo by Kenpei, CC BY-SA)</p>				<ul style="list-style-type: none"> <li><b>Diuron</b> – based products (Karmex®, or Karmex®XP), pre-emergence herbicides that must be sprayed before coffee planting or between coffee rows at last ½ m distance to trees. Usually applied at 275-500g/ha, but double-check product label.</li> </ul>	<ul style="list-style-type: none"> <li>WHO toxicity class III (slightly hazardous). Do not use Diuron on light sandy or gravelly soils as crop damage may occur; Do not apply more than once per year; Apply it if greater than 50mm rain is expected within 3 days; restricted re-entry interval r.e.i. ½ day; pre-harvest interval p.h.i.: 20 days</li> </ul>
 <p>Small carrot like whitish roots of <i>Oxalis latifolia</i> (photo by Gérard Lebreton – Cirad)</p>				<ul style="list-style-type: none"> <li><b>2, 4-Dichloro-phenoxyacetic acid (2, 4-D)</b> – based products; a post-emergence herbicide for the control of broad-leaved weeds. Usually applied at 800mL/ha, but double-check product label. Apply when weeds are 3 weeks old, and at least ½ m away from coffee as the herbicide also kills coffee. Do not spray at wind because herbicide will negatively affect coffee and neighbouring crops</li> </ul>	<ul style="list-style-type: none"> <li>WHO toxicity class II (moderately hazardous); Do not spray 2,4-D if rain seems likely within 6hours or if strong winds prevail; Do not apply 2,4-D if crop is stressed due to dry or wet conditions; r.e.i. 2 days; p.h.i.: 40days</li> </ul>

## Rwanda

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