

# FARM MANAGEMENT SYSTEMS

## New Pasture Establishment with Ecotain® Environmental Plantain

System	Sowing Method	Recommended sowing rates of Ecotain per ha	Expected Persistence of Ecotain	Benefits	Potential Issues
<b>General diploid perennial pastures</b>	Sown in the mix	3-4 kg with <b>Legion</b> or <b>Reason</b> plus 4 kg <b>Attribute</b> or <b>Brace</b> white clover	Declining post year 2	<ol style="list-style-type: none"> <li>1. Reliable</li> <li>2. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Weed management</li> <li>2. May require re-establishing into existing stands after 2-4 years.</li> <li>3. Hard to maintain</li> </ol>
<b>With a tetraploid hybrid ryegrass</b>	Sown in the mix	3-4 kg with 24 kg <b>Mohaka</b> plus 4 kg <b>Attribute</b> or <b>Brace</b> white clover	Declining post year 2	<ol style="list-style-type: none"> <li>1. Reliable</li> <li>2. May last as long as the hybrid</li> <li>3. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Weed management</li> <li>2. May require re-establishing of whole stands after 2-4 years</li> </ol>
<b>With Italian ryegrass and red clover</b>	Sown in the mix	6-8 kg with 14 kg <b>Asset AR37</b> or <b>Manta</b> plus 6 kg <b>Relish</b> red clover	Declining post year 2	<ol style="list-style-type: none"> <li>1. Reliable</li> <li>2. May last as long as the Italian</li> <li>3. Reduced nitrate leaching</li> <li>4. Speed of establishment competes with weeds</li> </ol>	<ol style="list-style-type: none"> <li>1. Summer seed head management</li> <li>2. Weed management</li> <li>3. Whole stand may need to be re-sown in 2-4 years</li> </ol>
<b>With an Italian ryegrass</b>	Sown in the mix	6-8 kg with 14 kg <b>Asset AR37</b> or <b>Manta</b>	Declining post year 2	<ol style="list-style-type: none"> <li>1. Reliable</li> <li>2. May last as long as the Italian</li> <li>3. Reduced nitrate leaching</li> <li>4. Speed of establishment competes with weeds</li> </ol>	<ol style="list-style-type: none"> <li>1. Summer seed head management</li> <li>2. Whole stand may need to be re-sown in 2-4 years</li> </ol>

## Undersowing with Ecotain®

System	Sowing Method	Recommended sowing rates of Ecotain per ha	Expected Persistence of Ecotain	Benefits	Potential Issues
<b>Broadcast</b>	Broadcast into existing pastures	4-8 kg/ha	Declining from year 2	<ol style="list-style-type: none"> <li>1. Weed control achieved before introduction</li> <li>2. Helps fill gaps and improve seasonal production</li> <li>3. Extends pasture life</li> <li>4. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Difficult establishment with competitive grass</li> <li>2. Slugs and snails can be damaging</li> </ol>
<b>Undersowing with clover</b>	Direct drilling mixed with clover	4 kg with 4 kg <b>Attribute</b> or <b>Brace</b> white clover	Declining post year 2	<ol style="list-style-type: none"> <li>1. Direct drilling more reliable than broadcast</li> <li>2. Weed control achieved before introduction</li> <li>3. Helps fill gaps and improve seasonal production</li> <li>4. Extends pasture life</li> <li>5. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Difficult establishment with competitive grass</li> <li>2. Slugs and snails can be damaging</li> </ol>
<b>Undersowing with Italian ryegrass</b>	Direct drilling mixed with Italian ryegrass	6-8 kg with 14 kg <b>Asset AR37</b> or <b>Manta</b>	Declining post year 2	<ol style="list-style-type: none"> <li>1. Reliable</li> <li>2. May last as long as the Italian</li> <li>3. Reduced nitrate leaching</li> <li>4. Speed of establishment competes with weeds</li> </ol>	<ol style="list-style-type: none"> <li>1. Summer seed head management</li> <li>2. Whole stand may need to be re-sown in 2-4 years</li> <li>3. Difficult establishment with competitive grass</li> <li>4. Slugs and snails can be damaging</li> </ol>

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## Ecotain® Dominant

System	Sowing Method	Recommended sowing rates of Ecotain per ha	Expected Persistence of Ecotain	Benefits	Potential Issues
<b>Ecotain®</b>	Sown alone	10-12 kg	Declining post year 2	<ol style="list-style-type: none"> <li>1. Registered herbicides available</li> <li>2. Reduced nitrate leaching</li> <li>3. Possible silage option</li> <li>4. Single species grazing management</li> <li>5. Can be strip grazed</li> </ol>	<ol style="list-style-type: none"> <li>1. Requires significant applied N from 2nd year</li> <li>2. Summer seed head management</li> <li>3. Should be sown with Suscon Green to minimise risk of stand collapse after 18 months</li> </ol>
<b>Ecotain® and clover</b>	Mix with white clover	10-12 kg with 4 kg <b>Attribute</b> or <b>Brace</b> white clover	Declining post year 2	<ol style="list-style-type: none"> <li>1. Reduced need for applied N</li> <li>2. More stable with white clover providing ground cover</li> <li>3. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduced weed control options with clover</li> <li>2. Summer seed head management from the second year</li> <li>3. Should be sown with Suscon Green to minimise risk of stand collapse after 18 months</li> </ol>

## Specialist Uses with Ecotain®

System	Sowing Method	Recommended sowing rates of Ecotain per ha	Expected Persistence of Ecotain	Benefits	Potential Issues
<b>Adjacent monoculture</b>	Sown alone (or with clover) in 30% of the total areas	12 kg plus 4 kg <b>Attribute</b> or <b>Brace</b> white clover (30% of the area) 20 kg <b>Legion</b> or <b>Reason</b> perennial ryegrass plus 4 kg <b>Attribute</b> or <b>Brace</b> white clover (70% of the area)	Declining post year 2 but opportunity to direct drill with perennial mix	<ol style="list-style-type: none"> <li>1. Reduced need for applied N</li> <li>2. More stable with white clover providing ground cover</li> <li>3. Can apply Suscon Green to just <b>Ecotain</b> area</li> <li>4. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduced weed control options with clover</li> <li>2. Summer seed head management from the second year</li> <li>3. Perceived grazing management issues - e.g. overgrazing</li> </ol>
<b>With winter cropping (eg. kale)</b>	Broadcast postsowing (e.g. swedes) or sown with crop (e.g. kale)	4 kg broadcasting postsowing 4 kg plus 5 kg <b>SovGold</b> sown with crop	6-8 months	<ol style="list-style-type: none"> <li>1. Potential environmental benefit for winter cropping</li> <li>2. Chemical options</li> <li>3. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Possible yield effect</li> </ol>
<b>With summer cropping (e.g. rape)</b>	Sown with crop (e.g. forage rape)	4 kg plus 4 kg <b>Mainstar</b>	6-18 months	<ol style="list-style-type: none"> <li>1. Potential environmental benefit for winter cropping</li> <li>2. Chemical options</li> <li>3. Reduced nitrate leaching</li> </ol>	<ol style="list-style-type: none"> <li>1. Two years crop rotation</li> </ol>