

## Experiment Scenarios

Use the following chart to explore each scenario and the actions you need to perform based on the roll of your die.

MONOCULTURE	POLYCULTURE
<ol style="list-style-type: none"> <li>Bugs started attacking your crops because they are resistant to your pesticide. <ul style="list-style-type: none"> <li><b>MONOCULTURE</b> <ul style="list-style-type: none"> <li><i>lower than 5 remove one</i></li> <li><i>higher than 5 add one</i></li> </ul> </li> </ul> </li> <li>Your machinery started leaking oil which is polluting your soil. <ul style="list-style-type: none"> <li><b>MONOCULTURE</b> <ul style="list-style-type: none"> <li><i>lower than 5 remove one</i></li> <li><i>higher than 5 add one</i></li> </ul> </li> </ul> </li> <li>Crows made a nest nearby and ate your planted seed. <ul style="list-style-type: none"> <li><b>MONOCULTURE</b> <ul style="list-style-type: none"> <li><i>lower than 3 remove one</i></li> <li><i>higher than 3 add one</i></li> </ul> </li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>You found a plant species that thrive when paired with another plant species. <ul style="list-style-type: none"> <li><b>POLYCULTURE</b> <ul style="list-style-type: none"> <li><i>lower than 2 remove one</i></li> <li><i>higher than 2 add one</i></li> </ul> </li> </ul> </li> <li>You added livestock to your property and this helps spread manure and fertilize your crops. <ul style="list-style-type: none"> <li><b>POLYCULTURE</b> <ul style="list-style-type: none"> <li><i>lower than 3 remove one</i></li> <li><i>higher than 3 add one</i></li> </ul> </li> </ul> </li> <li>Some pesticides from the neighbouring farms got into your water supply and have affected some of your plants. <ul style="list-style-type: none"> <li><b>POLYCULTURE</b> <ul style="list-style-type: none"> <li><i>lower than 4 remove one</i></li> <li><i>higher than 4 add one</i></li> </ul> </li> </ul> </li> </ol>

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<p>4. You did not add mulch or topsoil on your field and your soil is drying up faster and you need to use more water.</p> <ul style="list-style-type: none"> <li>• <b>MONOCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 5 remove one</i></li> <li>◦ <i>higher than 5 add one</i></li> </ul> </li> </ul> <p>5. You have invested in a new irrigation system that helps water to your crops.</p> <ul style="list-style-type: none"> <li>• <b>MONOCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 2 remove one</i></li> <li>◦ <i>higher than 2 add one</i></li> </ul> </li> </ul> <p>6. To increase nutrients in your soil, you use the crop rotation technique.</p> <ul style="list-style-type: none"> <li>• <b>MONOCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 3 remove one</i></li> <li>◦ <i>higher than 3 add one</i></li> </ul> </li> </ul>	<p>4. Gophers started eating some of your crops.</p> <ul style="list-style-type: none"> <li>• <b>POLYCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 4 remove one</i></li> <li>◦ <i>higher than 4 add one</i></li> </ul> </li> </ul> <p>5. Predators are hunting the gophers that are eating your crops.</p> <ul style="list-style-type: none"> <li>• <b>POLYCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 2 remove one</i></li> <li>◦ <i>higher than 2 add one</i></li> </ul> </li> </ul> <p>6. Some of your crops are growing before other ones which shelter the seeds from being eaten by birds.</p> <ul style="list-style-type: none"> <li>• <b>POLYCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 2 remove one</i></li> <li>◦ <i>higher than 2 add one</i></li> </ul> </li> </ul>

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<p>7. A disease invaded your crops since you have all the same species of plant, this affected half of your field.</p> <ul style="list-style-type: none"> <li>• <b>MONOCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 5 remove one</i></li> <li>◦ <i>higher than 5 add one</i></li> </ul> </li> </ul> <p>8. Kudzu vines, an invasive species, were introduced and are cutting off nutrients to your crops.</p> <ul style="list-style-type: none"> <li>• <b>MONOCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 3 remove one</i></li> <li>◦ <i>higher than 3 add one</i></li> </ul> </li> </ul>	<p>7. You set up a bat house and 6 pairs move in. This helps control the bug population.</p> <ul style="list-style-type: none"> <li>• <b>POLYCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 2 remove one</i></li> <li>◦ <i>higher than 2 add one</i></li> </ul> </li> </ul> <p>8. You added beehives that are now housing thousands of bees, this pollinates your crops and gives you more fruits and vegetables.</p> <ul style="list-style-type: none"> <li>• <b>POLYCULTURE</b> <ul style="list-style-type: none"> <li>◦ <i>lower than 2 remove one</i></li> <li>◦ <i>higher than 2 add one</i></li> </ul> </li> </ul>