



## What is Herbicide Resistance?

### Overview

Herbicide resistance is the ability of a plant to survive a herbicide application to which it was previously susceptible. The development of herbicide-resistant weed populations is linked to repeated use of herbicides with similar modes and sites of action.

### What you should know

- Herbicide-resistant plants are initially present in extremely small numbers, but repeated use of a herbicide—or multiple herbicides that kill plants using the same mode of action—allows these plants to survive and reproduce. The number of resistant plants then increases in the population until the herbicide no longer effectively controls it.
- Weed populations may be resistant to herbicides in different chemical families if those families share the same mode of action, however, resistance to herbicides with different modes of action can also occur.
- Multiple management practices can be used to prevent or delay the development of herbicide-resistant weed populations.
- Irregular patches of a single weed species in a field may indicate herbicide resistance, especially if: 1. other weed species are controlled, 2. there has been a previous failure to control that weed with the same herbicide, or 3. records show repeated use of one herbicide or herbicides with the same sites of action.

### Action steps

1. **Plant clean seed:** Plant certified seed to minimize the introduction of weeds.
2. **Rotate crops:** Crops differ in competitiveness against weeds, so rotate crops to prevent weed species from becoming dominant.
3. **Rotate herbicides:** Avoid year-after-year use of the same herbicide.
4. **Practice integrated weed management:** Use multiple tools to control weeds, including cultural, mechanical and chemical practices.
5. **Keep accurate records:** Document weed species present, herbicides and application rates, plus efficacy.

<https://catalog.extension.oregonstate.edu/pnw437/html>

For more information, contact:



[www.nutechseed.com](http://www.nutechseed.com)  
1-888-647-3478



*Managing herbicide resistance requires an integrated approach, including cultural, mechanical and chemical practices.*



### 30-Second Summary

- Previously susceptible weeds can develop herbicide resistance.
- Plants often develop resistance to herbicides with similar modes of action.
- Rotating crops and an integrated management approach can help control resistant weeds.

### NOTES:

---

---

---

---