

### Chemicals to Avoid for 2012 Alfalfa

Chemical Name	Chemical Use	Chemical Class	Environmental Guidelines	Toxicity
Chlorpyrifos/ Lorsban	Insecticide, Nematicide	Organophosphate	Highly toxic to birds, fresh water fish, aquatic invertebrates and moderately persistent in soil, suspected endocrine disruptor.	Moderate Toxicity
Diuron/ Karmex	Herbicide	Urea	Highly toxic to aquatic invertebrates, moderately toxic to fish, ground water contaminant, persistent in soil.	Slight Toxicity*
Paraquat Dichloride/ Gramoxone	Herbicide	Bipyridylum	Moderately toxic to birds, slightly to non-toxic to most aquatic animals, highly persistent in ground water.	High Toxicity
Malathion/ Bonine	Insecticide	Organophosphate	Highly toxic to bees, moderate to highly toxic to birds and fish.	Moderate Toxicity
Hexazinone/ Velpar	Herbicide	Triazinone	Causes irreversible eye irritation in humans, slightly toxic to fish, known ground water contaminant.	Acute Toxicity
Dimethoate	Insecticide	Organophosphate	Highly toxic to bees, cholinesterase inhibitor, potential ground water contaminant, toxic to wildlife and aquatic organisms.	Moderate Toxicity
Methomyl/ Lannate	Insecticide	N-Methyl Carbamate	Highly toxic to bees, birds and fish, highly soluble in water, possible ground water contaminant.	Acute Toxicity
Naled/ Dibrom	Insecticide	organophosphate	Toxic to nervous system, highly toxic to bees, drift and persistence in air are problems	High
Methamidop hos/ Monitor	Insecticide	Organophosphate	Very toxic to birds, aquatic organisms, very toxic to bees by reducing their foraging ability.	Acute Toxicity

\*persistent in water and toxic to aquatic animals