

# A GUIDE TO MAXIMIZE YIELDS ON YOUR FARM



## INTRODUCTION

Whether you call it herbicide layering, sequential herbicide applications, or a PRE plus POST weed control program, using a soil residual herbicide like **Avadex® MicroActiv®**, **Edge® MicroActiv®** or **Fortress® MicroActiv®** followed by an in-crop herbicide is a good idea.

## KEY BENEFITS

### 1. Higher Yields

Weed researchers have published numerous studies on the fact that young crop plants don't like having weeds around. It may surprise you that the yield potential of most crops, including wheat and canola, occurs as early as the 3 - 5 leaf stage. If you allow weeds to grow alongside your crop during this early period of growth, you are losing yield. By controlling a significant percentage of weeds before they emerge, you decrease the yield loss.

### 2. Reduced Selection Pressure with Post-Emergent Herbicide Application

By removing 60 - 90% of weeds before they emerge, you are making the job easier for a post emergent herbicide. At the same time, exposing the post emergent mode of action (groups 1, 2, 4, 5, 6, 9, 10, 14 or 27) to less weeds when it is applied. By reducing the population exposed to the herbicide, you are lowering both the selection pressure and the risk of developing herbicide resistance.

### 3. Management of Herbicide Application Timing

Remember all of the times when it was too wet to spray and you couldn't get all of your post-emergent herbicides put on at the correct timing? Application of a pre-emergent herbicide reduces your management risk because the timing may become less critical as you are already controlling a majority of the weeds before they emerge.

## WHICH PRODUCT SHOULD I USE?

After Wild Oats Only?	Avadex MicroActiv for minimum tillage and zero till fields	Avadex is registered on wheat, durum, barley, canola, peas, flax, canary seed (MicroActiv only), and mustard
	Avadex Liquid EC for fields with 40% or less crop residue coverage	
After Wild Oats but Want Some Millet control and Broadleaf Suppression?	Fortress MicroActiv for all fields	Fortress is registered on canola, spring wheat, durum, barley, flax and mustard
After a Wide Range of Grass and Broadleaf Weeds including Kochia, Wild Buckwheat, Cleavers (suppression), Wild Oats (suppression), Barnyard Grass, Millet and More?	Edge MicroActiv for all fields	Edge is registered on canola, field peas, lentils, faba beans, yellow mustard, dry edible beans, sunflowers, alfalfa (establishment), soybeans, and other specialty crops

For more information, please contact your local Gowan Canada Sales Representative, call 1-800-960-4318 or visit us online at [gowancanada.com](http://gowancanada.com)

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## WHEN TO APPLY?

As soon as you can after the dates shown below! Which means, try to get your Avadex, Edge or Fortress on this Fall. Of course, Spring Application is an option, but we recommend applying at the first available opportunity to make sure it gets done.

Any Time after September 15th	For Avadex and Fortress with incorporation soon after application
Any Time after September 1st	For Edge incorporated using conventional tillage tools like tandem discs, cultivators, vertical tillage tools, diamond harrows or other aggressive type tillage tools
Any Time after October 1st	For Edge incorporated using minimum tillage tools like heavy harrows

## WHY DO I HAVE TO INCORPORATE?

You wouldn't buy seed and then spread it on the soil surface hoping for a rain. Yes, you may get a crop, but the plant yield will be much better by placing the seed in the soil at the proper depth with a planter. The same applies with Avadex, Edge, and Fortress. Each has inherent chemical properties that need to be mixed into the top layer of soil to create a soil/chemical blanket for optimal performance and results. Incorporation means the active ingredient will stay in place and maximize performance. Without this mixing, you will still get weed control (same as you may get a crop with broadcast seeding), but it will be much better with incorporation.

## DO I NEED TO HARROW BEFORE APPLICATION?

Maybe. If you have heavy trash levels in the field after harvest or an uneven spreading of crop residues, it is a good idea to even things out and help penetrate that thick layer before you spread our granular herbicides. This will allow the granules to get to the soil evenly when incorporate after application.

## WHY DOES GOWAN ONLY RECOMMEND ONCE EVERY 4 - 5 EARS?

Because no herbicide is immune to resistance. We want growers to be able to use Avadex, Edge and Fortress for as long as they need to. Do not over use them.

## HOW DO I TELL IF IT'S WORKING?

For Avadex and Fortress on wild oats, do a scrape-back in an area where you know wild oats should be coming, or beside some wild oat plants that are making it through. Triallate, the Group 8 active in Avadex and Fortress, works on the wild oat as it grows through the treated layer. You will find wild oats that didn't quite make it to the soil surface pinched off at the top.

For Edge, you will need to dig around the soil in areas where you feel there should be weeds or near any escapes. You will find stunted root systems, with some swelling and discoloration. Edge is taken up by the roots of germinated seeds and must be present where the seeds germinate.