

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

The many benefits include:

**1**

### **Higher Yields**

Weed researchers have published numerous studies on the fact young crop plants don't like having weeds around. It may surprise you to that the yield potential of most crops including wheat and canola occurs as early as the 3 to 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 essentially making the job easier for your post emergent herbicides. And at the same time, exposing your post emergent mode of action, (group 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 reducing the selection pressure for and reducing risk of developing herbicide resistance.

**3**

### **Management of Herbicide Application Timing**

Remember that time it was too wet to spray and you couldn't get all your post-emergent herbicides put on at the correct timing? By having a PRE down on your field, you reduce 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<sup>®</sup> MicroActiv<sup>®</sup>** for minimum tillage and zero till fields.

**Avadex<sup>®</sup> Liquid EC** for fields with 40% or less crop residue coverage.

Avadex<sup>®</sup> is registered on wheat, durum, barley, canola, peas, flax, canary seed (MicroActiv<sup>®</sup> only), and mustard

### **After wild oats but want some millet control and broadleaf suppression?**

**Fortress<sup>®</sup> MicroActiv<sup>®</sup>** for all fields.

Fortress<sup>®</sup> 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<sup>®</sup> Granular** for all fields.

Edge<sup>®</sup> is registered on canola, field peas, lentils, faba beans, yellow mustard, dry edible beans, sunflowers, alfalfa (establishment), soybeans, and other specialty crops.

## WHEN TO APPLY?

As soon as you can after the "GO DATES" below! Which means try to get your Avadex<sup>®</sup>, Edge<sup>®</sup> or Fortress<sup>®</sup> 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.

For Avadex<sup>®</sup> and Fortress<sup>®</sup> with incorporation soon after application, that means any time after September 15th.

**Any time after September 15th**

For Edge<sup>®</sup> incorporated using conventional tillage tools like tandem discs, cultivators, vertical tillage tools, diamond harrows or other aggressive type tillage tools, start applying any time after September 1st.

**Any time after September 1st**

For Edge<sup>®</sup> incorporated using minimum tillage tools like heavy harrows, start applying any time after October 1st.

**Any time after October 1st**

### ? 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 counts will be much better by placing the seed in the soil at the proper depth with a planter.

The same goes with Avadex<sup>®</sup>, Edge<sup>®</sup> or Fortress<sup>®</sup>. Every molecule sold as a pesticide has inherent chemical properties and these three 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 that much better with incorporation.

### ? WHY DOES GOWAN ONLY RECOMMEND ONCE EVERY FOUR TO FIVE YEARS?

Because no herbicide is immune to resistance. We want growers to be able to use Avadex<sup>®</sup>, Edge<sup>®</sup> and Fortress<sup>®</sup> for as long as they need to. Don't over use them.

### ? 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 you incorporate after application.

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

For Avadex<sup>®</sup> and Fortress<sup>®</sup> 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<sup>®</sup>, you will need to dig around the soil in areas 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 germinating seeds and must be present where the seeds germinate.