



# Central Alberta Co-op Ltd.

## Last Crop Standing

Farmers can't choose the cards they're dealt, but they do decide how to play them. To farm you must be an optimist. Prepping, planting, and fertilizing the fields for a successful growing season takes a lot of patience, determination, courage, and hope. But as the saying goes "Hope is not a plan". Farmers have always been risk takers as so much of farming is reliant on six inches of topsoil and a good rain. These risks can't all be eliminated, but we are gaining new tools and technology all the time to help farmers manage them.

One of the most recent new tools farmers have at their disposal is Plant Growth Regulators (also known as PGRs). PGRs have been around for years in the greenhouse and horticulture industries mainly as "growth promoters" but are now making a name for themselves in agriculture as "growth inhibitors".

How PGRs work is by either suppressing or enhancing the already naturally occurring hormones found in plants - mainly auxin, cytokinin, abscisic acid, gibberellins. These hormones are the plants way of responding to changing environmental conditions, and are expressed through processes such as cell division, flowering, fruiting, senescence, and dormancy. What this means for farmers in Western Canada is that we now have the ability to control the growth patterns of our crops and manage environmental risk.

Chemical manufacturers have been able to isolate these hormones and achieve a desired crop response for a specific time in the growing season. The most recent example of a PGR hitting the market in Canada is a gibberellin inhibitor called Moddus. Moddus is registered for use in oats, wheat, but perhaps most notably, both feed and malt barley. What Moddus accomplishes by suppressing gibberellin production (applied at the 5-6 leaf stage) is a cereal plant with a shortened stem height.

Stem shortening hormone products like Moddus offer farmers flexibility. In the case of malt barley, quality is king. A flattened/lodged crop can mean sprouts, and sprouts mean the kernels won't germinate in the malting process resulting in rejection of the product from its intended market. On the other hand, in feed barley farmers are always trying to walk the line between applying enough nitrogen fertilizer to achieve high yields, but not too much that it grows too tall and falls over, leaving the swather unable to scrape it off the ground. Lodging no longer has to be our limiting factor. PGRs like Moddus take one variable out of the equation.

With commodity prices sky high and barley acres on the rise there is no better time to maximize the crop's potential from a risk that is now within our control. Control what you can, manage what you can't.

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