



**headsUP<sup>®</sup>**

PLANT PROTECTANTS INC.  
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**Heads Up<sup>®</sup> New Product for Rhizoctonia control for potato growers.**

**HeadsUp<sup>®</sup> seed treatment has received PMRA registration for use as a seed treatment for Potatoes. Now available in Canada.**

Seven years of company development and testing at Michigan State University, Dr. Willie Kirk, Drs. Jeff and Terry Miller in Idaho and. Dr. Khalil Al-Mughrabi at the New Brunswick Dept. of Agriculture, Wicklow, New Brunswick have shown promise for reduction of Rhizoctonia, and other fungal disease in potato crops.

A patented product, HeadsUp<sup>®</sup> is registered as a Reduced Risk Biofungicide by PMRA, EPA and certified by OMRI and NOP for use on organic farms. Biologically based, the product is manufactured from phytochemicals naturally occurring in plants. Our original direction of research was in the development of anti tumour drugs explains Joe Dutcheshen, president of the company. Product development began 1999, when some of the phytochemicals we were working with were tested on plants to screen for rhizoctonia control. The results we found were quite exciting and changed the direction of our focus toward plant disease protection.

We were quite astounded to see that fungal disease protection could be maintained systemically for full season long with just one seed treatment or single foliar application. The product when laboratory tested for fungicidal activity showed no effect, yet in plants the sustained systemic reduction of disease could be seen. Single treatments of HeadsUp<sup>®</sup> seemed to offer a “vaccine like” effect which later proved to be known as “Systemic Acquired Resistance”. Also known as Induced Resistance, a method of initiating natural plant disease protection normally elicited by a plant’s own response to disease attack but only after attack and often too late.

The mode of action is to signal a plant to start production of defence biochemicals before the actual disease attack occurs. Thus when the pathogen does attack the plant, the plant is primed and ready to respond to stop the pathogen before disease damage is done. “This is very similar to the immune system in humans” Dutcheshen said. An additional benefit this mode of action is the possibly of disease resistance developing to HeadsUp<sup>®</sup> is extremely unlikely.

The cost of HeadsUp<sup>®</sup> potato seed treatment is approximately \$1.00 per cwt of seed and available from Heads Up Direct Sales at [www.sar-headsup.com](http://www.sar-headsup.com) or Call Toll Free for a dealer near you 1-866-368-9306 .