

# Investigating Protein Discounts of Manitoba Soybeans

Protein has not been an explicitly stated discount item for Manitoba soybeans, but rather an unnamed part of the basis of the *Chicago Mercantile Exchange* futures price. These discounts are \$0.10–0.20 per bushel for protein levels that are 1.5–2.0% below the Ontario or Quebec standard for the crop year.

**SOYBEAN PROCESSORS MUST** blend lower protein soybeans from Manitoba (38%, dry matter basis (d.b.), on average) with higher protein soybeans from Ontario or Quebec to achieve 47.5% d.b. protein meal for animal feed. Processors provide guarantees for their soymeal products and pay claims to buyers if their guarantees are not met. Blending can introduce costs stemming from inefficiency during processing and inconsistency in product quality, which ultimately leads to discounts on low protein soybeans (<40% d.b.).

It has become a priority to understand the protein discount to support continued soybean production in Manitoba, mitigate the risk of shipment rejection if protein standards are not met (minimum of 32% d.b.) and alleviate the direct impact of discounts on the local cash price of soybeans.

The objectives of this study were to:

1. determine what makes up the discounted value of Manitoba soybeans,
2. examine the discounted value from a processor perspective and
3. assess the value of research (e.g., varietal development or management practices) to help narrow the quality gap.

A literature search was conducted to find current information pertaining to the soybean protein discount, including scientific journals, extension publications, industry publications and articles in the popular farm press. A series of consultations were also conducted with soybean producers, buyers and processors.

There are several discounts commonly applied to soybeans by buyers. These

include test weight, moisture, foreign material, damage and splits. However, protein has been an unnamed part of the basis of the *Chicago Mercantile Exchange* futures price and has not been explicitly stated as a discount item. These discounts have been set relative to the protein levels of soybeans in the marketplace at a given time due to variability in protein among regions and years.

Discounts for lower protein Manitoba soybeans are approximately \$0.10–0.20 per bushel for soybean protein levels that are 1.5–2.0% below the Ontario or Quebec standard for the crop year. This price discount is about 1–2% off the 40% d.b. protein soybean price. Discounts of \$6 per tonne have been reported for soybeans with under 33% d.b. protein in Manitoba and discounts of \$9 per tonne have been reported in Manitoba for soybeans with under 32.4% d.b. protein. Soybeans falling under 32% d.b. protein can face rejection.

With longer histories of soybean production, Ontario and Quebec have had time to hone their skills in both production and marketing. There has been a lack of soybean protein data available to Manitoba farmers, which is something MPSG is working to alleviate through various research studies examining genetic and environmental influences, such as the project summarized on the next page.

As soybean production continues in Manitoba, we will continue to gain experience that will lend itself to an improved soybean export product and/or increased local processing capability. Currently, there is only one soybean processor in Manitoba. The low protein



level of the soymeal they process is offset with other protein additives prescribed by livestock nutritionists who formulate rations for dairy, chicken and hogs.

What is the value of closing the gap between 38% and 40% protein soybeans? If we project 1.3 million soybean acres produced annually in Manitoba at a yield of 40 bu/ac, this gives us 52 million bushels of soybeans. If the price differential between 38% and 40% protein soybeans is \$0.20/bu, then the value of closing the 2% protein gap can be valued at \$10.4 million/year to producers.

Our future directions are to work toward closing the gap by increasing soybean protein levels over the long term and explore the various ways we can process our existing low protein soybeans locally while supplementing with alternative protein sources. ▶