

MARKET OPPORTUNITIES ANALYSIS FOR CANADIAN SOYBEANS

Section 2

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For Additional Information please contact:

Dr. Gregory Penner
Project Director, SOY 20/20 Project
1 Stone Road, West, 4th Floor
Guelph, Ontario
N1G 4Y2
Tel: 519-835-8677
Email: gpenner@soy2020.ca

Polyurethane Foam

Soy oil and soy protein has been technically demonstrated as a potential substrate for the manufacture of a wide variety of plastic products. Polyurethane foam production from soy oil represents the most mature of these opportunities. Polyurethane foams are produced by combining isocyanates with polyols. Polyols are produced from petroleum. Soy based polyols can be produced at a price competitive with petroleum based polyols (\$0.50 to \$0.70/lb). Polyurethane foams are primarily used in construction.

Table 20: Characterization of target market for soy based polyurethane foam

Target market scale

U.S. foam market	2,600	M lbs
Canadian foam market	290	M lbs
Target U.S. foam market	912	M lbs
Soy market potential	27%	

The estimates above translate into a significant market opportunity for Canadian soybean production.

Table 21: Estimated market opportunity for Canadian production of soy based polyurethane

Market opportunity

Canada	30%	
U.S.	10%	
Canadian soy based polyols	23.44	M lbs
U.S. soy based polyols (target market)	24.56	M lbs
Total market	48.00	M lbs
Total market	21,774	MT
Soy production required	115,106	MT
Value of market	\$24,002,039	cdn \$

The target U.S. market is composed of that portion of the U.S. within one days' trucking distance of southern Ontario. The market penetration estimates may appear conservative, but these estimates relate to the potential market penetration for Canadian production. There is existing U.S. production of soy based polyurethane foam already.

This market opportunity would be significant enough to justify a premium paid to Canadian soybean growers as a result of increased demand. This premium of

\$0.20/bushel coupled with the existing operating profit margin of \$1.39 per bushel results in a net present value estimate for this opportunity of \$52 M for producers from now to the year 2020.