

Conclusions

Marketing loans played an important role in acreage expansion for dry peas during 2003-05 and for lentils in 2003. In the case of dry peas, marketing loans contributed to an expansion in acreage for the 2003 crop by a third in North Dakota and about a fifth in Montana, above and beyond any increase due to market forces. The role of marketing loans in acreage expansion in North Dakota was substantially reduced in 2004 and 2005. No impact on dry pea acreage expansion from marketing loans was found in Montana for those 2 years, or in Idaho and Washington during 2003-05. On the other hand, marketing loans contributed proportionally more to the acreage expansion of lentils than of dry peas in North Dakota and Montana in 2003, but marketing loans had much less impact in any of the major producing States in 2004 and 2005.

The impacts of marketing loans on acreage expansion for dry peas and lentils were more pronounced in 2003 due to lower season-average prices over the few years prior to the planting decision time. The impact of marketing loans would have been greater for the 2003 dry pea crop in North Dakota if the grower price had not reached a high level due to dry weather. In contrast, considerably higher season-average prices in 2002/03 and 2003/04 caused by weather problems, and in 2004/05 by strong growth in demand, contributed to higher expected grower prices for dry peas in 2004/05 and 2005/06, lowering the impact of marketing loans on acreage expansion in 2004 and 2005.

Future acreage expansion of pulse crops will depend on whether a viable U.S. feed market develops to absorb the additional production of dry peas. The feed market in 2008 is largely undeveloped, and the growth experience of the feed market in Canada provides no historical basis for expecting that this will change soon. Until there is a consistent supply of dry peas to support a feed industry, the U.S. dry pea industry will continue to rely mostly on export markets for the sale of production induced by marketing loans. As for lentils, which are considered to be largely human food, any production increase that exceeds domestic demand will also go into exports.

Results of the simulation model used in the study (appendix B) suggest that marketing loans for dry peas and lentils had negligible impacts on market prices in the world market during 2003-05. For the 2003 crop, marketing loans contributed to an acreage expansion of U.S. dry peas and a reduction in the world price of 0.33 percent to 0.55 percent, depending on the demand price elasticity. Critical factors that lead to this negligible impact include: (1) the relatively small share held by U.S. production in the world market, (2) a modest share of revenues from marketing loan benefits, and (3) supply and demand price elasticities assumed in this study's analysis.

Thus, marketing loans for dry peas and lentils appear to have had minor impacts on the volume of world trade. The impact on U.S. exports was more pronounced in 2003 but limited to North Dakota and Montana. If all the additional production had been channeled into export markets, marketing loans would have increased the volume of exports by 1.8 percent for dry peas in 2003. The estimated impact was smaller in 2004-05. Similarly, marketing

loans are estimated to have led to an increase of 2.2 percent in U.S. lentil exports in 2003. However, no such impacts are found in 2004 and 2005.

This study abstracts from a formal treatment of risk about prices and yields, an analysis that would otherwise require the inclusion of a covariance term between crop yields and farm prices in expected net returns calculation. Also, truncation (from below) of the price distribution from the marketing loan program would have to be explicitly taken into consideration and incorporated into the calculation of expected net returns and expected variance of revenues. Finally, acreage response equations would include expected covariance of revenues if commodity prices are correlated.

The estimation of acreage response parameters in the study is constrained by a limited number of observations in the pooled time-series and cross-section data. This makes the estimated acreage response system more prone to the correlation issues between some explanatory variables and endogeneity concerns. While the use of extraneous information that was obtained from previous studies offers some remedy, future studies that include longer time-series data as they become available would be warranted.