The Role of Marketing Loans in Acreage Expansion

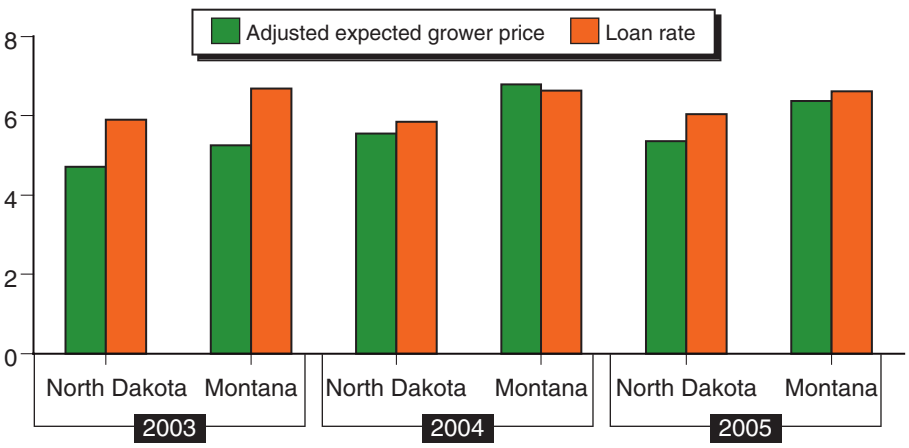
Dry pea and lentil producers benefit from marketing loans through loan deficiency payments (LDPs) or marketing loan gains (MLGs) when the weekly loan repayment rate is less than the loan rate. Since the LDP or MLG equals the difference between the loan rate and the loan repayment rate, the loan rate becomes the effective expected grower price when the expected price is low.

Marketing loans have an impact on acreage whenever the expected grower price is lower than the loan rate because farmers make their planting decisions, in part, based on the expected grower price, not the actual market price received by farmers. Marketing loans played an important role in acreage expansion for dry peas during 2003-05 and for lentils in 2003. In 2003, dry pea producers expected to receive marketing loan benefits of $1.18 per cwt in North Dakota and $0.63 in Montana—20 percent and 11 percent of the effective expected grower price (fig. 5). Growers in traditional pea-producing States—Washington and Idaho—were not expecting to directly receive an increase in the expected grower price attributed to marketing loans for the 2003-05 crops, even though marketing loans offered them downside price risk protection.

However, the marketing loan benefit was lowered to $0.29 per cwt for North Dakota producers in 2004 and to $0.68 in 2005. The expected grower prices for peas in North Dakota in those 2 years were considerably higher than for 2003 and were below the loan rates by a smaller amount. Thus, no direct increase in the expected grower price was expected by Montana pea producers for 2004 and 2005 because the expected grower prices—$6.79 and $6.37 per cwt—were greater than the loan rates. In the case of lentils in 2003, growers expected to receive a marketing loan benefit of $2.58 per cwt in North Dakota and $0.36 in Montana—accounting for 22 percent and 3 percent of the effective expected grower price, respectively (fig. 6). Lentil

Figure 5

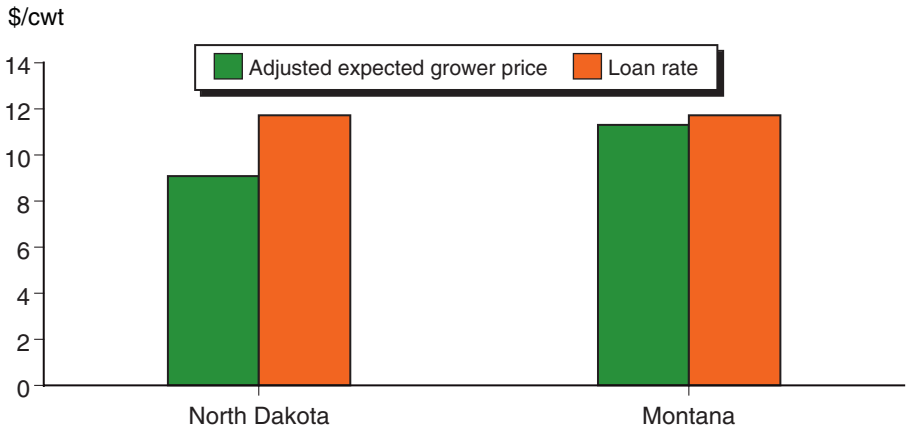
Dry peas: Adjusted expected grower price and loan rate, 2003-05



Sources: Adjusted expected grower prices estimated by USDA, ERS; loan rates as reported by USDA, Farm Service Agency.

Figure 6

Lentils: Adjusted expected grower price and loan rate, 2003



Sources: Adjusted expected grower prices estimated by USDA, ERS; loan rates as reported by USDA, Farm Service Agency.

growers in these two States were not expecting to receive direct marketing loan benefits for 2004 and 2005, nor were lentil producers in Washington and Idaho for 2003-05.

Table 9 shows simulated impacts of marketing loans on acreage expansion for dry peas during 2003-05 and lentils in 2003. In the case of dry peas, marketing loans contributed to acreage expansion in North Dakota, above and beyond market forces, by 40,000 acres in 2003, 9,000 acres in 2004, and 23,900 acres in 2005, and in Montana by 5,700 acres in 2003. Acreage expansion due to marketing loans was largest in 2003 because the marketing loan benefit reached $1.18 per cwt that year, compared with $0.68 in 2005. In percentage terms, marketing loans contributed to the acreage expansion of the 2003 crop, beyond that due to market forces, by 33.3 percent in North Dakota and 20.8 percent in Montana.

These impacts of marketing loans on acreage expansion are fairly significant. The impacts were more pronounced in 2003 due to considerably lower expected grower prices relative to the loan rates. Lower season-average prices over the previous few years prior to the planting decision time contributed to the lower expected grower prices for the 2003 crops. 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 as high as $6.70/cwt in 2002 due to weather problems—dry weather in both the Pacific Northwest and the upper Midwest reduced dry pea yields to well below trend. A higher price in 2002 resulted in a greater expected grower price for the 2003 crop, reducing the impact of the marketing loan.

The role of marketing loans in dry pea acreage expansion in North Dakota was substantially reduced, from 33.3 percent in 2003 to 3.0 percent in 2004 and 4.6 percent in 2005, due partly to a large base of planted acreage in these 2 years. In addition, higher grower prices—$6.70/cwt in 2002 and 6.54/cwt in 2003—contributed to higher expected grower prices for 2004 ($5.55/cwt) and 2005 ($5.35/cwt). Low yields of dry peas stemming from dry weather in 2002 and heat and drought in the Pacific Northwest in 2003, as well as

Table 9
Simulated impacts of marketing loan on acreage expansion of peas and lentils

Year	State	Actual planted acreage	Acreage expansion due to marketing loans	Planted acreage without marketing loans	Gain in acreage from marketing loans relative to acreage without marketing loans
		Dry peas (1,000 acres)			*Percent*
2003	North Dakota	160	+40.0	120.0	33.3
	Montana	33	+ 5.7	27.3	20.8
2004	North Dakota	310	+ 9.0	301.0	3.0
2005	North Dakota	540	+23.9	516.1	4.6
		Lentils (1,000 acres)			*Percent*
2003	North Dakota	55	+32.9[1]	22.1	148.9
	Montana	30	+ 5.7	24.4	23.2

[1]This acreage expansion is assumed to be half of that simulated using the beta coefficient of the expected net return for lentils in the acreage response model, reflecting the fact that the difference between the expected net returns for lentils calculated from the loan rate and expected grower price greatly exceeds the normal range during 1997-2005, the sample period in this study.

Source: Actual acreage from USDA, National Agricultural Statistics Service; other data computed by USDA, ERS.

strong demand in 2004, contributed to higher expected grower prices in 2004 and 2005. Hence, the impact of marketing loans would have been greater if weather in 2002-03 and market demand in 2004/05 had been in a more normal range.

Marketing loans contributed proportionately more to the acreage expansion of lentils in North Dakota (148.9 percent) and Montana in 2003 (23.2 percent) than to expansion of dry peas. A small base of planted acreage and an effective grower price lower than the loan rate were the main reasons.