What is Your Breakeven Price for Corn and Soybeans?

By Michael Langemeier

Breakeven prices are helpful when making crop decisions and when marketing crops. Breakeven prices vary substantially by soil type and farm. Without breakeven price information, it is very difficult for a producer to gauge or evaluate market opportunities as crop prices change or make crop rotation decisions. From January 2022 through September 2022, the weekly average of the December 2022 corn futures price ranged from $5.54 in early January to $7.47 in mid-May, while the weekly average November 2022 soybean futures price ranged from $13.02 in mid-January to $15.60 in mid-June. These wide differences illustrate how important it is to know a farm's breakeven price when evaluating forward pricing strategies, and when developing scenarios pertaining to potential cash flows for the year. This article uses enterprise budget information in the Purdue Crop Cost and Return Guide to estimate breakeven prices for corn and soybeans for average and high productivity soils.

Most enterprise budgets use economic costs rather than cash costs. This means that, in addition to cash costs and depreciation, opportunity costs are included. An opportunity cost represents the income that could have been earned if an input was sold or rented to someone else. Opportunity costs for unpaid family and operator labor, owned machinery, and owned land need to be included in an enterprise budget. The bottom line figure in the budget (i.e., earnings and losses) represents an economic profit. Over a long period of time, due to the fact that all inputs (cash items, depreciation, and opportunity costs) are being paid the market rate, economic profit is zero. If economic profit is positive, input prices will be bid up, similar to what happened to cash rents during the 2007 to 2014 period, and economic profit will migrate towards zero. Conversely, if profit is negative, inputs prices will decline, and economic profit will migrate towards zero.

Using the 2022 Purdue crop budgets, the estimated breakeven price to cover all costs was $5.60 for average productivity soil and $5.13 for high productivity soil. Breakeven prices in 2022 were approximately 26% above those for 2021. For full-season soybeans, the breakeven price to cover all costs was $12.53 for average productivity soil and $11.60 for high productivity soil, which was approximately 15% above the breakeven prices in 2021.

Looking ahead to 2023, breakeven prices for corn and soybeans for average productivity soil are estimated to be $5.97 and $13.52, respectively. These breakeven prices are 5 to 7% higher than those experienced in 2022. It is important to note that the Purdue budget uses average production costs. It is not uncommon for production costs for individual farms to be 10 percent below or 10 percent above the production costs reported in the budgets. Thus, at a minimum, it is extremely important to compute production costs for individual farms. Ideally, a producer should compute breakeven costs for each farm unit or tract. These computations do not make marketing decisions or crop rotation decisions easy, but they certainly provide important information that can be used when making these decisions. More information on specific cost items used to compute breakeven prices can be found in the publication entitled "2023 Purdue Crop Cost & Return Guide".

