

MULTIPLE PRODUCTS FROM A SINGLE ENTERPRISE

THE PROBLEM OF JOINT PRODUCTS

Financial analysis of a farm enterprise often involves the issue of joint products. The definition of joint products is when a single enterprise produces more than one saleable product. For example a dairy sells not only milk, but also cull cows and calves. Sheep produce lambs, wool, cull animals, possibly breeding stock and in the past a government payment. Analysis of costs and returns from an enterprise producing joint products is more complicated than analysis of a single product enterprise.

There are three ways that joint products can be addressed. They are 1) allocation to each product by revenue percent, 2) using the main product as a proxy for all production, or 3) careful measurement of the actual costs and returns for each product.

The first possibility is to use some arbitrary method of allocating to the products. A common method would be to analyze each products contribution to the total revenue of the enterprise and allocate costs to the products in the same proportion as revenue. This method is relatively simple, fairly easy to calculate and probably fairly accurate. The downside is that we don't know for sure if the allocation is accurate.

As an alternative we can transform all products mathematically into the principle product of the enterprise and analyze the results as if the principle product was the only product. This method is also simple to calculate, in essence the total gross revenue of the enterprise is divided by the unit price of the principle product and reported as if all sales were of that product. A shortfall of this method is that fluctuations in the market price can affect the calculation of the physical product produced.

Finally we can accurately measure the inputs and outputs of each product along with the associated costs and returns for each activity and analyze using this data. While this is the most accurate method it is very difficult and prohibitively expensive.

For the analysis reported here all products were analyzed using the single product method. In this case all income and costs from the sheep enterprise were treated as if the only product was market lambs. A single product called hundred weight (CWT) equivalents of slaughter lamb was analyzed. Because for the farms in this research, over 70 percent of the income was from sales of lambs, this is the correct approach.