

CASE: Integrative Case: Relevant Costs; Pricing

Jenco's only product is a combination fertiliser-weed killer called Fertikil. Fertikil is sold nationwide through normal marketing channels to retail nurseries and garden stores.

Taylor Nursery plans to sell a similar fertiliser weed killer compound through its regional nursery chain under its own private label. Taylor does not have manufacturing facilities of its own, so it has asked Jenco (and several other companies) to submit a bid for manufacturing and delivering a 25,000 pound order of the private brand compound to Taylor. While the chemical composition of the Taylor compound differs from that of Fertikil, the manufacturing processes are very similar.

The Taylor compound would be produced in 1,000 pound lots. Each lot would require 30 direct labour-hours and the following chemicals:

Chemicals	Quantity in pounds
CW – 3	400
JX – 6	300
MZ – 8	200
BE - 7	100

The first three chemicals (CW–3, JX–6, and MZ–8) are all used in the production of Fertikil. BE–7 was used in another compound that Jenco discontinued several months ago. The supply of BE–7 that Jenco had on hand when the other compound was discontinued was not discarded. Jenco could sell its supply of BE–7 at the prevailing market price less £0.10 per pound selling and handling expenses.

Jenco also has on hand a chemical called CN–5, which was manufactured for use in another product that is no longer produced. CN–5, which cannot be used in Fertikil, can be substituted for CW–3 on a one-for-one basis without affecting the quality of the Taylor compound. The CN–5 in inventory has a salvage value of £500.

Inventory and cost data for the chemicals that can be used to produce the Taylor compound are as shown below:

Raw Material	Pounds in inventory	Actual price / pound when purchased	Current market price / pound
CW – 3	22,000	£0.80	£0.90
JX – 6	5,000	0.55	0.60
MZ – 8	8,000	1.40	1.60
BE - 7	4,000	0.60	0.65
CN - 5	5,500	0.75	(salvage)

The current direct labour rate is £14 per hour. The predetermined overhead rate is based on direct labour-hours (DLH). The predetermined overhead rate for the current year, based on a two-shift capacity of 400,000 total DLH with no overtime, is as follows:

Variable manufacturing overhead	£4.50 per DLH
Fixed manufacturing overhead	£7.50 per DLH
Combined rate	<u>£12.00 per DLH</u>

Jenco's production manager reports that the present equipment and facilities are adequate to manufacture the Taylor compound. Therefore, the order would have no effect on total fixed manufacturing overhead costs. However, Jenco is within 400 hours of its two-shift capacity this month. Any additional hours beyond 400 hours must be done in overtime. If need be, the Taylor compound could be produced on regular time by shifting a portion of Fertikil production to overtime. Jenco's rate for overtime hours is 1½ times the regular pay rate, or £21 per hour. There is no allowance for any overtime premium in the predetermined overhead rate.

Required:

1. Jenco, has decided to submit a bid for a 25,000 pound order of Taylor Nursery's new compound. The order must be delivered by the end of the current month. Taylor Nursery has indicated that this is a one-time order that will not be repeated. Calculate the lowest price that Jenco could bid for the order without reducing its net operating income.
2. Refer to the original data. Assume that Taylor Nursery plans to place regular orders for 25,000 pound lots of the new compound during the coming year. Jenco expects the demand for Fertikil to remain strong. Therefore, the recurring orders from Taylor Nursery would put Jenco over its two-shift capacity. However, production could be scheduled so that 60% of each Taylor Nursery order could be completed during regular hours. As another option, some Fertikil production could be shifted temporarily to overtime so that the Taylor Nursery orders could be produced on regular time. Current market prices are the best available estimates of future market prices.

Jenco's standard markup policy for new products is 40% of the full manufacturing cost, including fixed manufacturing overhead. Calculate the price that Jenco would quote Taylor Nursery for each 25,000 pound lot of the new compound, assuming that it is to be treated as a new product and this pricing policy is followed.