

Product Cost Calculation

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Last Cost

Last Cost is the last price paid for a product on a Purchase Invoice or the most recent cost of a manufactured product.

Last Cost is updated when:

1. A Purchase Invoice increases inventory.
2. Manufacturing of product takes place resulting in an increase or decrease to inventory.

Note: *Last Cost* is not updated when a Purchase Invoice decreases inventory (return to vendor).

Average Cost

Average Cost in Agvance is a weighted average of costs. This means the change in *Average Cost* depends on the amount of Company Owned Inventory prior to the purchase and the amount of inventory being purchased. *Average Cost* is always listed in billing units.

Company Owned Inventory is the *Amount On Hand* minus the unprocessed Purchase Receipts (which have not yet been valued) plus the unprocessed Delivery Tickets and Blend Tickets. Company Owned Inventory can differ significantly from the *Amount On Hand* if there are several unprocessed purchases or deliveries.

If the Company Owned Inventory quantity is much greater than the quantity of product on the Purchase Invoice, the effect on the *Average Cost* will be small. However, if there is little Company Owned Inventory and a large purchase is entered, the effect on the *Average Cost* will be significant. Remember, *Average Cost* does not depend on the amount of inventory in the warehouse, but rather the amount of Company Owned Inventory.

The formula for determining the new *Average Cost* takes three values into consideration, *ValueBefore*, which is the value of Company Owned Inventory prior to the purchase; *ValuePurchased*, which is the value of the inventory on the Purchase Invoice; and *QuantityAfter*, which is the amount of Company Owned Inventory after the purchase. These values are defined below:

$ValueBefore = Company\ Owned\ Quantity * Current\ Average\ Cost / Billing\ Divisor$

$ValuePurchased = Quantity\ Purchased * Cost\ of\ Purchase / Billing\ Divisor + Freight - Discount$

$QuantityAfter = (Company\ Owned + Quantity\ Purchased) / Billing\ Divisor$

Average Cost is updated with:

1. An increase or decrease to inventory from a Purchase Invoice.
2. An increase or decrease to inventory from manufacturing product.

Formula

- $NewAverageCost = (ValueBefore + ValuePurchased) / QuantityAfter$

Estimated Average Cost

Estimated Average Cost is updated by Purchase Receipts and is useful for fast-moving inventory that is likely to be sold before the Purchase Invoice ever arrives. *Estimated Average Cost* is only updated for products whose department Invoice cost is set to *Estimated Average*.

Company Owned is calculated differently for a Purchase Receipt when updating a product's *Estimated Average Cost*. It is the pre-transaction Amount On Hand + unprocessed loaded Delivery Tickets + unprocessed loaded Blend Tickets. Otherwise, *Estimated Average Cost* uses the same formula and rules as *Average Cost*.

Note: *Estimated Average Cost* is updated with Purchase Receipts only.

Exceptions for Average and Estimated Average Cost

There are a few times when the *Average Cost* formula is not used:

1. If *ValueBefore* is less than or equal to zero, then the *Average Cost* will be set to the cost on the Purchase Invoice.
2. If *ValuePurchased* is less than or equal to zero and *ValueBefore* is less than or equal to zero, then the *Average Cost* will not change.
3. If the value of the inventory after the purchase is less than or equal to zero, the *Average Cost* will be set to the *Last Cost* on the Product file.
4. If *ValueBefore* is less than zero and the value of the inventory after the purchase is zero, then the *Average Cost* will be the cost of the purchase.

There are a few times when the *Average Cost* formula is not used to calculate the *Estimated Average*:

1. If *ValueBefore* is less than or equal to zero, then the *Estimated Average Cost* will be set to the cost on the Purchase Receipt.
2. If *ValuePurchased* is less than or equal to zero and *ValueBefore* is less than or equal to zero, then the *Estimated Average Cost* will be set to the cost on the Purchase Receipt.
3. If the value of the inventory after the purchase is less than or equal to zero, the *Estimated Average Cost* will be set to the cost on the Purchase Receipt.
4. If *ValueBefore* is less than zero and the value of the inventory after the purchase is zero, then the *Estimated Average Cost* will be set to the cost on the Purchase Receipt.