

Procedures for Verifying Inventory

Department Verification of Inventory

Year-end inventory count and valuation must be made as of close of business on June 30th. In special cases with respect to timing of inventory counts, allowances to the June 30th requirement may apply. Approval by Campus Services is required on any changes to the June 30th date for inventory counts.

1. Physical arrangement

- a. Arrange merchandise and consumables to be inventoried in a neat and orderly manner. This will provide for more efficient and accurate physical counts.
- b. Prepare a diagram of the inventory location in sufficient detail to give each counter, shelf, bin, farm area, etc., an identification number. List these identification numbers on the Inventory Count Sheets for item location.
- c. Include all merchandise received prior to the start of the inventory count regardless of the scheduled date of delivery. For example, if a shipment was requested for July 8, but delivered June 25, the merchandise is included in the June 30 count.
- d. Physically segregate damaged slow-moving or obsolete merchandise from other merchandise. Identify these items separately on the Inventory Count Sheet.
- e. Physically segregate consumable material or merchandise in University custody but not owned by the University. Report these items separately as "non-owned property on hand". The value is shown for insurance purposes; however, the value will not be reflected in University accounting and financial records.

2. Year-end cut-off

- a. Inventory count must be taken as near to June 30 as possible unless as noted above. If the size of the inventory requires several days to complete the count, make provisions to adjust the count to consider receipts and issues from the time count is started until close of business (in most cases).
- b. Instruct suppliers and/or Central Receiving that deliveries to the inventory location must not be made on the day(s) during which the physical counts are being made.
- c. Segregate all merchandise received after the count starts, but before close of business (in most cases on June 30), and list it on a separate Inventory Count Sheet noted as "Supplemental Inventory". Include (1) merchandise description, (2) supplier or vendor, (3) date of receipt, (4) value of merchandise and (5) vendor invoice date and number. The invoices pertaining to this merchandise are to be marked "Before Inventory" and submitted promptly for payment. If this merchandise is immediately issued or consumed, include an explanation.

3. Personnel

- a. The persons performing the physical counts must be familiar with the merchandise being inventoried, but (to the extent possible) not directly associated with the inventory function.
- b. The persons performing the physical counts should work in pairs whenever possible—one person counting, the other person recording the counts.
- c. Assign personnel to count specific areas. The assignment of personnel is essential to prevent counting some areas more than once and other areas not at all.

4. Identification of consumables or merchandise

- a. Describe merchandise on the Inventory Count Sheets concisely but in sufficient detail to specifically identify the items being counted.
- b. Indicate unit of measure on the Inventory Count Sheets--i.e. case of 24 cans, dozen, and each. Open cases or partially used bottles may not be counted unless not counting would materially affect the inventory value. If broken lots are included in the inventory, show these as a separate line item.
- c. If material belongs to more than one account, separate Inventory Count Sheets must be submitted for each account involved.
- d. Indicate any special condition of merchandise (used, repairable, damaged, etc.) on the Inventory Count Sheets.

5. Inventory Count Sheets

- a. Inventory Count Sheets - <http://busfin.colostate.edu/Resources/Forms.aspx> are available for use. Number the Inventory Count Sheets before starting the count (use the page number field) and control the sheets by assigning blocks of sheets to the persons making the physical counts. This is important to ensure that Inventory Count Sheets are accounted for at the end of the physical count. A computer listing or other preprinted list may be substituted for the Inventory Count Sheets.
 - b. If preprinted lists are used, zero quantities must be shown prior to starting the count.
 - c. Each Inventory Count Sheet must be signed and dated by the person(s) making the physical counts.
 - d. Each Inventory Count Sheet must be completely filled in. When a full sheet is not used, rule it off and mark it "end of area".
 - e. The individual responsible for the inventory must ensure that the physical counts are accurate. This may include verifying the accuracy of the recorded count. The count verifications must be made by persons other than the team doing the original count. These count verifications are independent from any test counts made by auditors or personnel from Campus Services.
6. **Value extensions** - After the count has been recorded as outlined above, enter the value, total each page and the entire inventory. All calculations should be verified by a second individual. If a complete check is not possible, sufficient spot checks must be accomplished to ensure accuracy. Personnel making the calculations and spot checks should be identified on the Inventory Count Sheets and the Inventory Certificate.
7. **Comparisons of count data with records** - Upon completion of the physical inventory, compare the total item count and value obtained from the physical inventory with the item count and value according to the inventory tracking system (software). Discrepancies of physical count versus recorded balances less than 5 percent of the total recorded quantity on hand (and less than 5 percent of the total value) must be noted by the inventory taker or clerk. Larger discrepancies must be rechecked and approved by a designated supervisor. The value of the inventory from physical count and recorded amount must match 100 percent for the Inventory Certificate.
8. **Inventory summary and certificate** - Enter the totals from each Inventory Count Sheet onto the Inventory Count Sheet Summary - <http://busfin.colostate.edu/Resources/Forms.aspx>. Calculate and enter the grand total for the inventory. Complete and attach an Inventory Certificate - <http://busfin.colostate.edu/Resources/Forms.aspx> to the Inventory Count Sheets (or computer listing) and Summary Sheet. Submit the inventory packet to Campus Services by the due date published annually in the year-end instructions by BFS. Submit separate inventory certificate for each account involved. The Inventory Certificate should agree to the value of the inventory recorded in the Quali Financial System at year end.

Campus Services Review of Inventory

Inventory Assets are audited each year. Prior to year-end, Campus Services will conduct inventory count verifications to ensure items were counted correctly. Verification reviews will include spot checking counts, verifying item locations, assessing the organization and cleanliness of the stock room, and checking invoices for proper pricing.

Test counts should be made from both directions: Record to Stock and Stock to Record. The Record to Stock testing is completed by selecting items on the inventory sheet, locating the physical items and counting them. The Stock to Record testing is completed by selecting items in their physical locations, counting them, and then comparing that count to the inventory record. Conducting the count from both directions allows for the possibility to catch items that are physically in inventory but were never recorded in the inventory system, location discrepancies, items sent to surplus but not recorded in the system, and other potential discrepancies.

1. **Errors in the Count Verification** - If the total errors found by Campus Services are greater than 5% in the count verification or the count valuation, the following must be done to correct the inventory:
 - a. The cause of the errors must be cleared up within 6 months, and the inventory must be recounted no later than 6 months after the initial inventory count. The next business day following the department inventory recount, Campus Services will do a second count verification.
 - b. If the error in the recount verification is still greater than 5% a meeting will be set up with BFS, the department head and business officer to come to a resolution on how to accurately track inventory.
2. **Errors in the Invoice Cost Verification**
 - a. Campus Services will select 5 items to test for cost verification. If the cost variance is greater than 5%, then 5 more items will be selected for testing. If the cost variance is still greater than 5% a meeting will be set up with BFS, the department head and business officer to discuss the accounting methods used for costing and to come up with a solution for the costing differences.
3. **University farms and livestock inventory**
 - a. **Livestock** - A physical count of livestock must be made as of June 30 or as noted above. Departments may require monthly reports, however for University inventory purposes; the report is required only at the end of the fiscal year or designated count. The ending inventory count and valuation is recorded on the Summary Animal Inventory Report or facsimile form. The births, deaths, sales, etc. represent the total year's activity.
 - b. **Feeds** - Livestock feeds (including hay, straw, silage, grains, meal, salt, etc.) which are on hand June 30 or as noted above, must be inventoried and valued. A separate inventory of each physically separated lot of feed must be made giving the specific location (stack, bin, etc.).
 - c. **Bulk gas and oil** - Must be measured and reported in gallons.
 - d. **Crops which have been harvested** - That are on hand June 30th or as noted above but have not been sold (and officially billed out), must be listed as inventory. Annual growing crops, not yet harvested, are excluded from inventory.

Cost Valuation Methods

1. **First-In First-Out (FIFO) cost method:** A method of inventory valuation in which cost factors are assumed to flow in chronological order with the first item received being the first item issued. The costs remaining in inventory therefore bear close relationship to current replacement costs.
2. **Average Cost Method:** Costs items on the basis of the average cost of all similar goods available during the period.
3. **Moving-average Cost:** A new average cost per unit of issue is calculated by adding the cost of purchased items just received to the cost of present inventory (quantity on hand multiplied by present average unit cost) and then dividing the total value by the total number of units now in inventory.

Example:

Items in inventory 20 at \$10.00 average cost = \$ 200.00

Items just purchased 100 at \$12.00 = \$1,200.00

Total cost = \$1,400.00

\$1,400 divided by 120 gives new average cost of \$11.67

4. **Weighted-average Cost:** Total cost of goods available for sale divided by the total number of units available (see example)

<u>Date of invoice</u>	<u>No. Units</u>	<u>Unit Cost</u>	<u>Total Cost</u>
March 2	2,000	\$4.00	\$8,000
March 15	6,000	4.40	26,400
March 30	<u>2,000</u>	4.75	<u>9,500</u>
Total goods available	10,000		\$43,900
Weighted Average Cost:		$\frac{\$43,900}{10,000} =$	\$4.39

5. **Equivalent Units Method:** Allocation of total herd costs to various weighted animal categories based on the ratio of the total herd equivalent units and the equivalent units for a category. Costs associated with mature females are reallocated to the suckling category.

Month of May	Suckling		Weanling		Mature	
	Qty	Value	Qty	Value	Qty	Value
Beginning Inventory	220	\$30,231	113	\$29,297	247	\$62,656
Transfers between categories	0	0	0	0	0	0
Sales	0	0	0	0	0	0
Deaths	(10)	(1,374)	3	(1)	(259)	4 (5) (1,268) 5
Sub-total	210	28,857	112	29,038	242	61,388
Additional cost	0	3,752	2	0	1,042	1 0 0
Ending inventory	210	32,609	112	30,080	242	61,388
Unit price		\$155		\$269		\$254

6. **Retail Inventory Method:** The inventory, priced at retail value, is converted to an estimate of cost by application of mark-up ratio and other applicable factors. This procedure is illustrated by the following example:

Purchases, plus beginning inventory (at cost)	\$50,000	64.10%
Original mark on	\$30,000	
Plus net mark up	2,000	
Less net mark down	<u>-4,000</u>	
Net mark on	<u>28,000</u>	35.90%
Retail value	\$78,000	100.00%
Less net sales	<u>-40,000</u>	
Inventory value at retail	\$38,000	100.00%
Less inventory mark on	<u>-13,642</u>	35.90%
Estimated cost of inventory	\$24,358	64.10%

In this example, the mark-up is 35.9%. By deducting the mark-up from the ending retail value of the inventory, the cost value of the ending inventory is calculated.