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# Instructional Facilities, Equipment and Inventory Management

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## Planning Instructional Facilities

The space (classroom and laboratory) and equipment needed to properly conduct a good educational program in agriculture differs considerably from those needed in other areas of secondary education. To conduct a well organized Agricultural Education program for the various groups to be served, it is essential that the facilities include a classroom, office, conference room, storage rooms, restrooms and the appropriate laboratories such as agriculture mechanics, greenhouse, food science, etc. Also, an attractive entrance should be provided that allows access to classrooms, offices, and restroom facilities. There must be flexibility so that semester courses can be taught and equipment can be stored so other equipment can be moved in to accommodate a different subject. Standard Nine in the Standards and Quality Indicators for Agriculture Program Improvement lists minimum space requirements for the various parts of an agriculture facility and other quality guidelines.

## Office and Conference Rooms

The office and conference room is a place for conferences between teachers and students, and groups of students such as FFA committees, farmers, and others. The teacher's desk, cordless telephone with answering machine, and files are usually kept in the office and conference room. The office and conference room should have an entrance from a corridor so that farmers and others may visit an instructor without entering the classroom. Glass panels should be located between the laboratories and classroom when possible. While teachers should never leave classrooms and laboratories unattended during class/instructional time, the glass panels make it possible for the teacher to work in the office and at the same time observe "traffic" in the classroom, and laboratories if applicable. Office space at a minimum should be 120 square feet. Offices should be designed for 1.5 to 1 ratio length to width.

## Restroom Facilities

Adult classes, young farmer classes, FFA activities, and Young Farmer and Young Farm Wives activities are attended by both males and females. Therefore, it is desirable that conveniently located restroom facilities for both men and women are provided.

## Classroom - Laboratory – Library

Classrooms for agriculture are usually equipped with tables and chairs rather than individual desks or tablet chairs. Tables and chairs make arrangements flexible, encourage the use of a variety of reference materials in seeking solutions to practical problems, and are adapted to such activities as plant, seed, soil specimen study, and other laboratory teaching. A library area in the classroom is ordinarily equipped with shelves and cabinets for books, bulletins, magazines, notebooks, and supervised agricultural experience (SAE) record books. The classroom should be large enough to accommodate additional chairs for meetings of the FFA, parents, young farmer

classes, adult classes, and other agricultural groups. A minimum of 780 square feet (35 square feet per student X number of students in the largest class + area for sink, etc.) with a minimum width of 26 feet and minimum length of 34 feet should be provided.

### **Agriculture Mechanics Laboratory**

Provisions must be made for storage of unfinished projects, materials, supplies, and tools not kept in the laboratory. A paved area enclosed by a fence, with a portion covered by a roof furnishes economical storage for bulky materials, farm machinery, and equipment when not in immediate use. In mild weather, large construction and repair projects may be conducted in both the open and covered areas. An area should also be provided for cleaning equipment outside of the agriculture mechanics laboratory. A general rule to follow for size of the agriculture mechanics laboratory is 150 square feet per student in the largest class + (number of machines X 50 square feet) + 20 percent of this total. Large areas of unobstructed floor space, high ceilings, and large doors are essential to provide students with significant learning experiences in maintenance, construction, and repair of farm machinery and equipment. The growing use of power tools, electrical equipment and computers makes it necessary to provide for all present electrical requirements and also for future expansion in the use of electricity. In no case should the main service line and fuses have a current carrying capacity of less than 850 amperes at 230 volts. Care should be taken so that equipment and power are matched, three-phase should be used wherever possible. Storage should be provided so delivery trucks can unload wood, metal and other materials easily. Heavy materials should be stored as close to the delivery area as possible. A sink large enough for six or more students to wash at a time should be located in the agriculture mechanics laboratory.

### **Greenhouse**

The greenhouse should be located in close proximity to the classroom office area but in an orientation for maximum sunlight. A 24' X 60' foot greenhouse is a minimum with consideration given to space for larger classes. Generally 70 square feet per student in the largest class is recommended for student work space and plant material storage.

### **Other Laboratories**

Other laboratories such as food science, aquaculture and biotechnology may require specialized equipment and space to accommodate individual stations containing science laboratory sinks and tables. These laboratories require additional storage and classroom floor space that needs to be tailored to the specific class. A cabinet equipped with a sink and running water is usually provided in the classroom for laboratory work such as food science and other laboratory activities.

## Inventory Management

**D**ue to accountability for the large and varied number of equipment items required to provide a quality agriculture program, an up-to-date inventory is a necessity. In addition, an inventory is a requirement in cases where state or federally funded equipment is concerned.

One of the first and highest priorities of an agriculture instructor should be to complete an inventory of all items assigned to the agriculture program. This is especially true if the instructor is new to the school. Items which were identified on previous inventories should be accounted for or noted as missing by the new instructor. In subsequent years an annual up date is needed.

Reasons for completing an annual inventory include:

1. Noting the condition of the equipment;
2. Maintaining recent copyrights on textbooks;
3. Identifying equipment for replacement or disposition; and
4. Addition of new items.

### **State and Federally Funded Equipment Procedures**

Several inventory requirements exist for equipment items purchased with the aid of state or federal funds.

1. The school shall retain such property in a project or program as long as there is need for such property to accomplish the purpose of the project or program for which it was purchased.
2. The school is responsible for the management and inventory of such equipment. The inventory must be available for review and evaluation. One copy should be kept in the Ag Dept. and another copy on file in the administration office.
3. Inventory must be current and available for review and audit. The following information must be included in the recipient's inventory records:
  - A description of the equipment.
  - A serial number, model number, or other identification number.
  - The funding source and percentage under which the equipment was acquired.
  - The acquisition date and unit cost.
  - The source of equipment (company name, where purchased).
  - The present location, use, condition of the equipment, and date the information was reported.
  - All pertinent information on the final transfer, replacement, or disposition of the equipment.
4. Inventory policy outlined by the Dept. of Elementary and Secondary Education may be accessed on the Internet at [http://dese.mo.gov/divcareered/Equipment/Equipment\\_Inventory\\_Policy.pdf](http://dese.mo.gov/divcareered/Equipment/Equipment_Inventory_Policy.pdf)

**Division of Career Education**  
**Guidelines for the Purchase, Inventory, and Disposition of Equipment**  
**July 1, 2006**

As of July 1, 2006, the Division of Career Education has revised its policy with regard to equipment. This policy provides guidelines and procedures for the purchase, inventory, and disposition of equipment for all programs within the Division. This policy also is retroactive and covers any equipment purchased prior to this date.

**Purchase Guidelines**

All equipment purchased with State/Federal funds must be in accordance with the regulations of the funding source. The equipment purchased must be reasonable and necessary to effectively operate the program.

Recipients will be required to maintain inventory as per the Inventory Guidelines listed below and follow local inventory policies and procedures.

**Career Education 50/50 and Enhancement Grant Equipment**

For those recipients utilizing Career Education 50/50 and Enhancement Grant dollars for equipment, an FV-4 *Application for Authorization of Career Education Expenditures* form for prior approval of equipment purchases must be submitted. In addition, claims for reimbursement of authorized equipment purchases must be made on an FV-2 *Reimbursement Request for Approved Career Education Expenditures* form. The FV-2 must be accompanied by supporting invoices for all equipment purchases. For equipment with a per unit cost of \$1,000 or more, the serial number must also be included. However, to be reimbursed, equipment items must only have a per unit cost of \$200 or more. For items with a per unit cost of \$1,000 or more, each program section will keep the FV-2s for equipment with supporting invoices on file for a period of three (3) years.

**Adult Education and Literacy Equipment**

For those recipients utilizing Adult Education and Literacy dollars for equipment, an AEL-4 *Application for Authorization of Adult Education and Literacy Expenditures* form for prior approval of equipment purchases must be submitted. Supporting invoices and the serial number for equipment with a per unit cost of \$1,000 or more must be submitted. For items with a per unit cost of \$1,000 or more, the AEL section will keep the supporting invoices on file for a period of three (3) years.

**Perkins Equipment**

For those recipients utilizing Perkins dollars for equipment, a budget page and equipment explanation page must be submitted on-line. Only equipment items with a per unit cost of \$1,000 or more should be included on these pages. Equipment items under \$1,000 will be considered materials and supplies. Supporting invoices and serial numbers do not need to be submitted for any equipment items.

**Community Education Equipment**

For those recipients utilizing Community Education dollars for equipment, a grant proposal must be submitted. Each application for a grant should fully describe the need for such equipment and how such equipment will be used. The amount requested for equipment should also be listed on the recipient's budget.

**Inventory Control Guidelines**

The following items are subject to the inventory management and control requirements: 1) equipment items with a per unit cost of \$1,000 or more, and 2) items with a per unit cost under \$1,000 which are

considered attractive or easily pilfered. These “sensitive” items may include audio-visual equipment, PDAs, digital cameras, laptops, television sets, DVD players, VCRs, power tools, and computers and accessories. Computer equipment, such as a CPU, monitor, disk drive, keyboard, cables, etc purchased as a unit are to be listed and priced as a system. Such purchases may not be listed by individual components to achieve costs of less than \$1,000.

The inventory management and control requirements are as follows:

1. Inventory must be current and available for review and audit. The following information must be included in the recipient’s inventory records:
  - A description of the equipment.
  - A serial number, model number, or other identification number.
  - The funding source and percentage under which the equipment was acquired.
  - The acquisition date and unit cost.
  - The present location, use, condition of the equipment, and date the information was reported.
  - All pertinent information on the final transfer, replacement, or disposition of the equipment (including the date of disposal and sale price of the equipment).
2. Inventory must be updated as equipment items are purged or new purchases are made.
3. Equipment items purchased with Federal funds are to be identified and physically marked as such.
4. Adequate safeguards must be in place related to the loss, damage, or theft of the equipment. Any loss, damage, or theft should be investigated and fully documented.
5. Adequate maintenance procedures should be implemented to keep the equipment in good condition.
6. A physical inventory of equipment items must be taken and the results reconciled with the inventory records at least once every two years.

### **Disposition Guidelines**

The disposition/transfer of equipment policy applies to any equipment item that is obsolete, not repairable, damaged, destroyed, lost, or stolen. This policy covers any equipment item purchased by a recipient with State funds or Federal funds.

### **Equipment Purchased With State Funds**

When original or replacement equipment acquired with State funds is no longer needed for the original project or program, the equipment may be retained, sold or disposed, if it is not needed in any other State sponsored project or program. The following are the procedures to eliminate any equipment item from the inventory:

1. Equipment items with an acquisition cost/current per unit fair market value of **less than \$5,000** and are **more than three years old** may be retained, sold or disposed, with no further obligation to the State. The disposition of such items should be so noted on the equipment inventory maintained by the entity.
2. Equipment items with an acquisition cost of **\$5,000 or more** and are **more than three years old**, follow the procedures below:
  - a. Obtain two signed bids from potential purchasers or two appraisals from authorized appraisers to determine the current per unit fair market value.
  - b. If the current per unit fair market value is less than \$5,000, see #1 above.

- c. If the current per unit fair market value is \$5,000 or more, the equipment may be retained or sold and the State shall have a right to an amount calculated by multiplying the current market value or proceeds from the sale by the State's share of the equipment. However, the entity is permitted to deduct and retain from the State's share \$500 or 10% of the sales proceeds, whichever is less, for the entity's selling and handling expenses.
  - d. Forward a check made payable to the Treasurer, State of Missouri in the amount of the State's share to the Department of Elementary and Secondary Education. The amount is then returned to the General Revenue Fund of the State.
  - e. The disposition of such items should be so noted on the equipment inventory maintained by the recipient. The recipient should include the date of disposal and sales price or the method used to determine current fair market value if the recipient compensates the State.
3. Recipients must request disposition instructions from the Director of Finance in the Division of Career Education for equipment items that are **less than three years old**. Recipients given permission to dispose of equipment less than three years old will not be given approval to purchase similar equipment until the three-year period has ended.

#### **Equipment Purchased With Federal Funds**

When original or replacement equipment acquired with Federal funds is no longer needed for the original project or program, the equipment may be retained, sold or disposed, if it is not needed in any other Federal sponsored project or program. The following are the procedures to eliminate any equipment item from the inventory:

- 4. Equipment items with an acquisition cost/current per unit fair market value of **less than \$5,000** may be retained, sold or disposed, with no further obligation to the awarding Federal agency. The disposition of such items should be so noted on the equipment inventory maintained by the recipient.
- 5. Equipment items with an acquisition cost of **\$5,000 or more**, follow the procedures below:
  - a. Obtain two signed bids from potential purchasers or two appraisals from authorized appraisers to determine the current per unit fair market value.
  - b. If the current per unit fair market value is less than \$5,000, see #4 above.
  - c. If the current per unit fair market value is \$5,000 or more, the equipment may be retained or sold and the awarding Federal agency shall have a right to an amount calculated by multiplying the current market value or proceeds from the sale by the awarding Federal agency's share of the equipment. However, the recipient is permitted to deduct and retain from the Federal agency's share \$500 or 10% of the sales proceeds, whichever is less, for the recipient's selling and handling expenses.
  - d. Forward a check made payable to the Treasurer, State of Missouri in the amount of the Federal agency's share to the Department of Elementary and Secondary Education. The amount is then returned to the appropriate Federal grant.
  - e. The disposition of such items should be so noted on the equipment inventory maintained by the recipient. The recipient should include the date of disposal and sales price or the method used to determine current fair market value if the recipient compensates the awarding Federal agency.

#### **Equipment Transfer**

When original or replacement equipment acquired under a grant (State or Federal) is no longer needed for the original project or program, the equipment may be transferred and used in other projects or programs

currently or previously funded by the State or the awarding Federal agency. Recipients must request approval from the Director of Finance in the Division of Career Education to transfer items of equipment to different programs. Permission to transfer items from inventory will be granted following review and approval of the recipient's request. Recipients that are given permission to transfer equipment will not be given approval to purchase similar equipment until the three-year period has ended.

### **Miscellaneous**

When acquiring replacement equipment, the recipient may use the equipment to be replaced as a trade in or sell the equipment and use the proceeds to offset the cost of the replacement equipment, subject to the approval of the State or the awarding Federal agency. If the equipment is sold, then the proceeds must be handled as stated earlier in the Disposition Guidelines.

If an item of equipment has been damaged, destroyed, lost, or stolen, an official investigation by the proper authority should be conducted and fully documented. A copy of this report must be submitted to the Director of Finance in the Division of Career Education. Permission to dispose items from inventory will be granted, in writing, following review and approval of this report. A recipient is responsible for replacing destroyed, lost, or stolen equipment and repairing damaged equipment.

### **Definitions**

**Equipment** means tangible personal property having a useful life of more than one year and is not considered to be a supply.

**Acquisition cost** of an item of purchased equipment means the net invoice unit price of the equipment, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment usable for the purpose for which it was acquired. ***In addition, freight charges, installation charges, and other charges directly related to placing the equipment in use may be reimbursed.***

**Current fair market value** is determined by obtaining two signed bids from potential purchasers or two appraisals from authorized appraisers for the purpose of disposing of or transferring equipment. When the equipment is being traded in for like or similar equipment used in the same program for the same purpose, the trade in value constitutes the current fair market value of the traded in equipment.

Note: Any equipment paid for under a contract for services is the property of the Department of Elementary and Secondary Education. The equipment will become the property of the Department at the dissolution of the contracted services.