

BLUEPRINTS FOR GREENHOUSES AND EQUIPMENT

John W. Bartok, Jr.

Extension Agricultural Engineer

Efficient, well-planned facilities are a part of today's modern greenhouse system. When planning new construction, consideration should be given to building greenhouses best suited to the crops to be grown. Automatic environmental control, both for summer and winter, should be an integral part of the structure. New developments in growing techniques and materials handling should be planned for and developed as part of the system.

The Agricultural Engineering Department in cooperation with the USDA maintains a plan service which currently contains working drawings for over 400 farm structures and pieces of equipment. Most of these are on 17 x 22" paper and can be used to get cost estimates as well as aid in the actual construction. A bill of materials and construction techniques are included on some of the drawings.

A complete index lists all 400 of the plans and is available upon request. Ask for publication 72-1. This includes structures and equipment for all agricultural enterprises as well as vacation cabins and utility sheds.

Below is a list of the plans developed to aid commercial greenhouse operators. Orders can be sent to the Department of Agricultural Engineering, University of Connecticut, Box U-15A, Storrs, Connecticut 06268 or your regional Extension office. Remittance is requested with the order.

Plan No. 239. TWENTY-SIX FT. WIDE, SLANT-LEG GREENHOUSE. \$1.00--Covered with single or double layer polyethylene. Designed for bedding plants. Can be built in multiples of 4 feet. Uses treated wood posts for footings.

Plan No. 810. STRAIGHT LEG RIGID-FRAME GREENHOUSE. \$1.00--23'x48' or multiples of 4'. Can be covered with polyethylene or fiberglass. Post or pier foundation.

Plan No. 243. THIRTY-FOUR FOOT, RIGID-FRAME GREENHOUSE. \$1.00--This clear span building was designed to meet the requirements of the commercial bedding plant and greenhouse vegetable growers. It is covered with polyethylene plastic.

Plan No. SP498. TWENTY-FOOT-WIDE PIPE FRAME GREENHOUSE. \$.25--Hoop house using 1" galvanized water pipe. Can be built in multiples of 3'. Uses 32' wide polyethylene covering.

Plan No. 236. LATH HOUSE. \$1.00--This 23'x48' rigid frame structure can be used for winter storage of nursery stock or as a retail sales area.

Plan No. SP544. JIG FOR BENDING PIPE ARCHES--15' WIDE. \$.25--Wood block jig can be set up on wood floor or trailer bed. Can be adapted to other sizes.

Plan No. 5192. ROADSIDE STAND. \$.50--24'x28' frame construction with slab on grade foundation. Plan includes floor layout and construction details.

Plan No. 5193. ROADSIDE STAND. \$.50--12'x24' frame construction. Shutter windows on front allow full view of produce on shelves in the rear.

Plan No. 5983. ROADSIDE STAND. \$.50--8'x16' frame construction and large protecting overhang. Shelves are adjustable.

Plan No. 6027. ROADSIDE MARKET. \$1.50--30'x60' cement block construction. Floor plan includes display area, work area, refrigeration room and office. Over-head doors are used in the front.

Equipment

Plan No. 240. FLAT FILLER. \$1.50--This machine can mechanically fill 800-1200 flats per hour. It will handle soil and artificial mixes as well as various size flats.

Plan No. 241. GREENHOUSE BENCHES. \$.50--Construction details for four types of benches are shown.

Plan No. 244. PLANT SHIPPING CONTAINER. \$.50--Welded, steel container for shipping bedding plants or groundcovers. Holds 80-90 flats. Fit back to back on flat bed truck. Moved with fork lift truck.

Plan No. 246. GREENHOUSE PLASTIC, ROLL SUPPORT AND DISPENSER. \$.50--Aids in unrolling film plastic over greenhouse. Mounted on fork lift or bucket loader. Will handle rolls to 10 feet wide. Welded steel construction.

Plan No. SP551. ALARM SYSTEM FOR GREENHOUSES. \$.25--Will handle greenhouses with thermostat in each. For temperature or power failure. Buzzer can be located up to 1/2 mile away. Connected by wire.

Plan No. 6121. PALLET BIN FOR VEGETABLES. \$.50--47"x47" plywood bin.