

University of Alaska Fairbanks Agricultural and Forestry Experiment Station

Georgeson Botanical Notes No. 20

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Build Your Own Bedding Plants Light Table

Even if you buy most of your bedding plants from a commercial greenhouse sometimes it's nice to start a few plants of your own. You may want to grow that special variety that caught your eye last summer or you may just want to see something alive and growing in your house as winter seems to drag on forever.

Trying to grow bedding plants on your windowsill usually provides disappointing results because of high temperatures and low light conditions. The best solution is a home greenhouse, but if you don't have the budget, space or ambition to build a greenhouse then a lighted seedling rack may be the answer for you.

Seedling light tables can be purchased from garden supply catalogs for \$300 to \$500 depending on the size and features or you can build one yourself. The rack in this plan is easy to construct and has four lighted shelves which will hold a total of 16 1020 flats (ll''x21"). The height of the lights can be adjusted to maintain optimum light intensity as the plants grow.

- 1. Cut eight 24" and eight 45" pieces of 2"X4". Set up a dado blade to cut a 3/4" wide by 3/4" deep groove and cut a dado 1" from the bottom of each piece of 22.5". Assemble the four shelves by gluing the plywood into the dado and gluing and screwing the 2"X4" supports together.
- 2. Cut four 76" pieces and two 27" pieces of 2"x4". Mark the locations of four shelves on the 76" 2"X4" uprights and glue and screw the shelves to the uprights. Glue and screw the two 27" cross pieces to the top of the uprights.
- 3. Mount a duplex outlet under one end of the top cross piece and each of the top three shelves. Mount a timer to the flat side of one of the uprights adjacent of the outlets and wire the outlets so that they are all controlled by the timer. The light table should be plugged into a ground fault interruption outlet.
- 4. Mount four cup hooks on bottom of the top cross pieces and the top three shelves to hang the four foot shop lights. The lights can be adjusted up or down with their mounting chains. For optimum growth the lights should be mounted about 2" above the foliage.

Materials List

Shelves(4)

6 2"x4"x8"

1 4'x8' Sheet 3/4" or

5/8" CDX Plywood

Uprights(2)

2 2"x4"x8"

2 2"x4"x10"

Fasteners

about 40 16d Galvanized Nails or 3" Treated Screws

Lights

8 4' Shop Lights

16 Cup Hooks

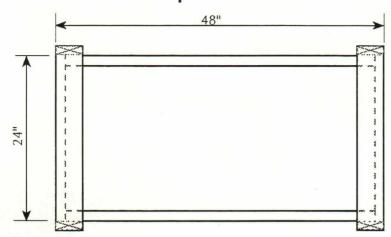
4 Duplex outlets

30' Electrical Wire

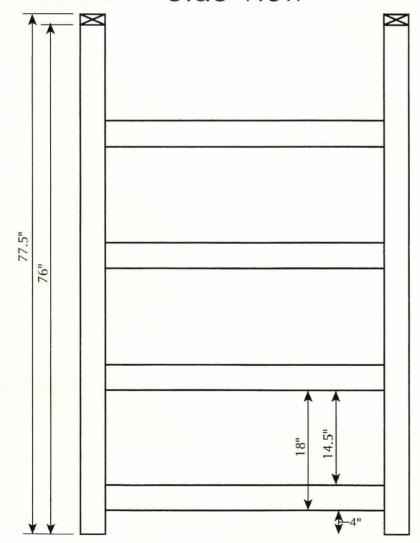
1 Grounded Plug

1 Grounded Timer

Top View

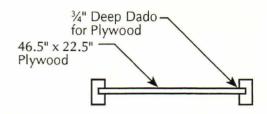


Side View



Note: Light fixtures are not shown in side view above.

Cross Section



End View

