DAIRY CATTLE MEASURING STICK

Evaluating the growth of dairy heifers, using the measuring stick described below, provides useful information on the success of the heifer-raising program on a dairy farm. Height of heifers measured once per month can be compared to standard breed averages. This information, in combination with body weight measures, can be used to determine the adequacy of the nutrition program and can be used to determine the optimum time for breeding.

Materials: (can be obtained from any hardware store)
- Crazy Glue
- Line Level
- PVC 1/2" Tee Connector
- Measuring Tape
- Saw
- Drill
- Black Permanent Marker
- 10 foot piece Conduit PVC
- 1/2" Pipe with built in coupling (Should be grey)

PVC Pipe can be obtained with a built-in coupling. If PVC pipe with a built-in coupling is not available, you will also need to purchase a separate coupling.

1) Cut the 10 foot PVC pipe into three sections with a hand or electrical saw. 
   4-Hers must have adult supervision to operate power equipment.
   - 1 - 32" section (make sure built-in coupling is in this section)
   - 1 - 18" section
   - 1 - 40" section

2) Insert the 40" section into coupling of the 32" section (see Figure 1).

3) With the tape measure and the permanent marker, mark off 1/4" ticks starting just above the coupling (on the 40" section). Remember when marking the inches to take into account the distance of the lower section (your first tick mark should be about 33" from the ground).

4) Attach the level to the center of the 18" section of PVC pipe with Crazy Glue.

5) The lip on the inside of the tee will need to be reamed out with the drill so that the tee can move freely up and down the stick. (This can be done at the hardware store).

6) With the tape measure and the marker, mark off 1/4" ticks on the tee.

7) Attach the 18" section to the perpendicular tee coupling (see Figure 2).

8) Slide the tee through the top of the measuring stick (See Figure 3).

9) Measure animal on a hard, flat surface.

10) Measure height of animal at withers making sure that the stick is level.

The entire stick can be taken apart for easy storage.

Measuring stick designed by: Arnold Nieminen, Department of Animal Science, University of Connecticut. Prepared by: Kimberly Linonis and Dr. Sheila Andrew, Department of Animal Science, University of Connecticut.
Figure 1

40" section with tick marks

Coupling

32" section with coupling

Figure 2

18" section

Tee

Line level

Figure 3