

Table 1. Bin Inspection Equipment

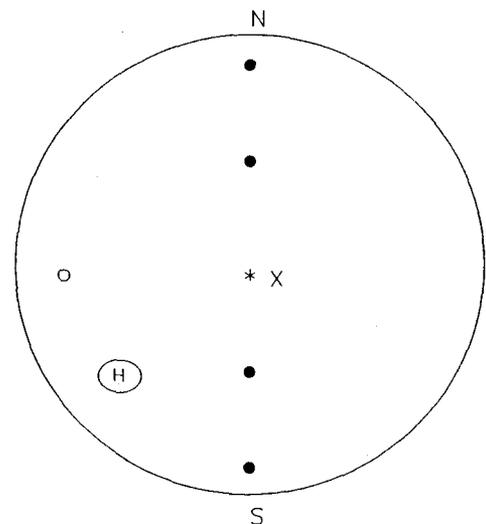
1. Duffle Bag - Army surplus
2. Man-in-Bin sign - magnetic
3. Safety Belt
4. Safety Ropes - 60-75 feet
5. Bin Lettering Guide - resembles the spokes of a wheel made from 5-36" pieces of lath, spaced 72° apart by means of string stapled to each lath
6. Spray Paint - for lettering the inside of bin during initial inspection
7. 5-Foot Compartmentalized Grain Trier - for moisture and insect probes
8. Temperature Probe
 - a. Bin Thermometer
 - b. T-Handle
 - c. 3-Foot Extension (threaded type)
9. Vise Grips - used with temperature probes to ensure probes are not lost
10. Screwdriver - for opening moisture cans
11. Moisture Sample Containers (use one quart bottles or metal cans)
12. Sample Collectors (3' x 7' canvas cloth or metal gutter)
13. Sample Bags - for carrying moisture samples
14. Plastic Box with pens and tags
15. Clipboard with forms
16. Grain Sieves
 - a. 1/12-inch round hole sieve or 1/8" hardware cloth soldered on cake pan
 - b. 3/16-inch round hole sieve or 1/4" hardware cloth soldered on cake pan
 - c. solid bottom pan
17. Moisture Meter - Dole 400, Steinlite, Motomco Model 919, etc.
18. Dust Masks
19. Rawhide Bootlace - for holding equipment together and for attaching vise grips and screwdriver to safety belt
20. Boerner Divider

Sampling plans

There are several sampling patterns that may be utilized to locate damaged grain hot spots or pest populations. A minimum sampling plan for round and flat storage is explained below:

Full upright bin

1. A north-south orientation of sampling points is suggested to ensure a sampling of grain in areas having potentially the most extreme temperature variation.
2. Full length trier sample at 10° angle. Sample 1 foot from north and south wall and halfway between center and wall (Figure 3).
3. Horizontal trier sample 3 inches below grain surface in an undisturbed area (Figure 3).
4. Deep cup sample (265 g size) at surface and at 3-foot intervals from the grain surface to the bottom (Figure 3).



- Moisture Probe Position
- * Deep Cup Sample
- X Temperature Probe Position
- Horizontal Trier Sample (Undisturbed area)
- H Hatch Opening

Figure 3. Minimum sampling plan for full upright bin.