Preparing CROP EXHIBITS

BY L. D. KURTZ

ISSUED BY MONTANA EXTENSION SERVICE
BOZEMAN, MONTANA
Display Pointers

Select materials for exhibit early.

In selecting seed or threshed grain keep in mind adaptability; maturity; freedom from injury, disease or crop mixture; weight per bushel; plumpness; seed condition, and other factors that have an influence upon yielding ability and the market value of the seed.

Clean seed samples thoroughly with a good fanning mill.

Cut samples and put under cover before being injured by rain or sun. Cure sheaves in a dark, airy room.

Educational exhibits are of value in proportion to the quality of the material, the attractiveness of the arrangement, and the story that is told by the exhibit.

Pack all exhibits so they will arrive safely without injury to the material.
Preparing Crop Exhibits
By L. D. Kurtz, Extension Agronomist,
Montana State College

The primary purpose of crops exhibits at fairs, whether community, county, district or state, is to emphasize points of quality in the various crops adapted to the region represented by the exhibits. There is no point in exhibiting crops which are not adapted or which have no economic or other value. Freaks and curiosities have little or no place in the exhibit booths and will not be considered in this bulletin. The fair or crops show is an educational institution to teach what strains and varieties of crops are best adapted and what qualities and characteristics are most important in determining values. It is the purpose of this bulletin to indicate the kinds of sheaves, grains, and seeds that should be exhibited, and to serve as a guide to help the exhibitor select and prepare his displays to the best advantage.

Since it is desired to attract attention all exhibits should be shown at their best—dressed up in their "Sunday clothes". However, economic value must not be sacrificed for appearance. Seed grain, for example, should not be rubbed to the point where seed condition is injured. The judge is impressed by appearance but he is more impressed by economic values. The exhibitor should have the same point of view. Ribbons, after all, are but indications that the exhibitor has reached a certain stage of perfection in production; the fact that he has reached that stage should bring more satisfaction than the mere possession of an award.

Clean the Samples

Prize winning samples of threshed grain are not taken directly from the threshing machine or combine. Extra cleaning must be given if a sample is to have kernels that are uniform in size and shape. A good fanning mill with screens of proper size, when given plenty of wind, will eliminate most of the smaller and lighter kernels as well as any dirt. Two or three runs through a mill will aid greatly in producing a uniform sample.

If a good mill is not at hand a strong wind and some coarse screens can be used satisfactorily for the same work. It is well to use two or more bushels of grain so that after screening and
rescreening there will be left at least a peck of the largest and plumpest kernels.

One must keep in mind that screening and cleaning alone cannot produce prize winning samples. An exhibitor should pick out the best quality material with which to work so that his sample, when ready for competition, will be of very high quality. For in-

Fig. 1. Cleaned grain, carefully selected for color, uniformity and plumpness of kernel make a good showing. The illustration shows good exhibits of wheat, oats and barley.
stance, in the hard red spring wheat class he will select dark amber colored kernels that are uniform in size and shape and plumpness of kernel, and which will weigh at least two or three pounds more than the standard weight. Quality and good seed condition must be uppermost in the mind of the exhibitor.

Hand Picking

Exhibitors often resort to hand picking to obtain the best possible sample for exhibit. This consists simply of spreading the sample out in a thin layer on a table so that all off-type or discolored kernels can be picked out. The speed of this work depends entirely upon the quality of the material and how well the cleaning has been done.

Hand picking is not allowed at the State Utility Seed Show, which is sponsored by the Montana Seed Growers’ Association. This ruling has been made because hand picked samples do not truly represent the bulk of the seed from which it is taken, and the purpose of the show is to present the seed which producers have for sale.

However, very few exhibitors can win at the larger fairs of the state or at the International Hay and Grain Show held at Chicago unless some hand picking is done. When exhibiting in such keen competition one must “dress up” his sample to the fullest extent.

Clipping and Treating

The practice of clipping, rubbing, bleaching or treating samples in any way to improve their weight or appearance is very undesirable, inasmuch as this practice injures the seed value of the grain. Clipping oats or barley so that the endosperm is exposed should be, and often is, sufficient cause for disqualification at the discretion of the judges. Some leeway should be given of course, as occasionally such a treated sample well may be placed ahead of a very inferior untreated sample. Other things being equal, the untreated sample should receive the preference over the treated one.

Threshed Wheat

In preparing a threshed sample of wheat it should be remembered that judging will be done on the basis of seed value and milling quality. A good sample must have more than the legal
weight, must be uniformly bright colored, plump, and free from cracked kernels, yellowberry, mixtures, weeds, and other seeds. A good fanning mill will not only save much labor in preparing a sample, but the sample will be of much higher quality than if a cleaning device of this kind is not used. It is necessary to start with a sufficient amount of wheat so that the final sample will be very uniform.

**Threshold Oats and Barley**

Color, size and plumpness of kernel, as well as weight per bushel are the principal points to keep in mind in preparing either oats or barley for exhibit. These grains should be cut when fully ripe, placed under cover and kept dry if they are to have the brightest color. Barley, especially, will stain badly if allowed to get wet.

**Threshold Rye**

In preparing a sample of rye it is particularly important to eliminate cracked kernels and ergot. Rye kernels vary a great deal in color, from a bluish green to a pasty yellow. The bluish green color of kernels which are plump should be saved and the others eliminated from the sample.

**Beans**

Careful screening is necessary to prepare a good bean sample so that the beans will be of a uniform size. Hand picking is necessary if off-shaped and discolored beans are to be eliminated. Competition in this class is always rather keen as it is comparatively easy to prepare a high class bean sample.

Exhibitors have found that by rolling beans in a silk stocking, a handful at a time, a very high degree of polish can be obtained. This not only greatly improves the general appearance, but it does much to prevent the dirty appearance that is quite common when beans are displayed where there is considerable dust in the air. The bean seed coat has a natural soft white bloom which holds dust. By polishing off this bloom the beans do not hold the dust so readily and look much more attractive, particularly toward the end of the show.

**Alfalfa Seed**

Alfalfa seed samples are very hard to clean for exhibition unless the proper machinery is available. A fanning mill will aid
greatly but it alone cannot bring a sample up to the desired quality. Nearly all of the nine cleaning plants in the state recognized by the Montana Seed Growers Association have gravity mills which can take out most of the dirt and weed seeds that are so hard to remove from alfalfa seed. Gumbo, Russian thistle, tumbling mustard, chaff and dirt can be handled very satisfactorily by the gravity mill. In preparing alfalfa or clover seed it is almost necessary to use this gravity machine if the exhibits are to place with the winners.

**Ear Corn**

Practical points such as maturity, adaptability, plumpness of kernel, quality of germ, and freedom from molds, are of the greatest importance in selecting a 10-ear sample for a seed show. Select ears which conform in size with the corn grown in the community. Do not pick ears that are especially large. Experience and observation are the best guides to indicate the size commonly grown.

Good show ears always must be seed ears of the highest quality. Exhibits should be selected from ears saved for next year's seed. Select 100 ears or more of good type and seed condition. Lay these ears out on the floor or table and discard the ears which do not conform to the type desired for the variety and the section in which the corn was grown. This discarding should continue until the very best type ears are left. The ears selected should be as uniform as possible.

Judges pay much attention to the following points in judging corn samples:

1. **Breeding**—this is shown by the uniformity in shape and color, of the ears and kernels.
2. **Adaptation**—this is shown by the length and circumference of the ear, shape of kernel, indentation and shelling percentage.
3. **Seed condition**—size and texture of germ; freedom from excess moisture, molds, and diseases; and maturity are the factors indicating seed condition.

**Small Grain Sheaves**

In gathering sheaf material for exhibition it is necessary to keep in mind the color, yield, quality and purity of the grain.
Fig. 2. It takes careful work to select prize-winning corn exhibits.
Sheaf samples will be best if selected early. Samples taken just before the grain is fully ripe will be less likely to shatter. Samples should be cured by hanging them, heads down, in a dark, airy room. When so handled they will retain their bright color, and bleaching, which is caused by sun and rain, will be avoided.

In selecting grain for sheaf samples be sure that the straw is clean and free from rust, discoloration, or disease. Heads should be long and well-filled.

It is a common practice to strip the leaves from the stems before the show sheaf is made up. A sheaf mold, as shown in the illustration, aids materially in making a tight bundle. Small bundles can be laid upon this foundation and rotated as the sheaf increases in size, thus forming a smooth and regular shaped sheaf.
Sheaves should be from three to five inches in diameter under the heads and must be securely tied in three places.

All straw and grain must be thoroughly dry before the sheaf is made up so there will be no heating or molding. Be sure that the bundle is cut off square as nothing detracts as much from an otherwise fine appearing sheaf as a ragged butt.

Fig. 4. Sheaves properly prepared make attractive exhibits. The bundles should be firmly tied and the string covered with ribbon.

**Alfalfa and Clover Sheaves**

Bundles of alfalfa and clover should be made up to represent the best stage of growth for hay purposes. Alfalfa should be cut when the new shoots are about one to one and one-half inches in height or when the plants are about one-tenth in bloom. Clover should be cut just before it reaches the full bloom stage. When so cut the hay will have its maximum growth as well as its greatest feeding value. The second cutting of alfalfa will give much better quality hay from which to make a bundle as the stems are much finer and there is a greater proportion of leaves.
Cut the selected sample by hand and after removing all impurities and discolored leaves spread out in a thin layer in a dark, airy room. It is important to preserve the green color and the leaves of the plant, so curing should be done slowly and evenly. Proper control of light, heat and ventilation is more important for curing legume hays than grasses.

A well packed bundle of hay should feel soft when handled, should have an abundance of leaves, as they have the highest food value, and the bright green color should be retained. Discolored leaves, stems, and any kind of foreign matter are very objectionable and should be discarded when making the bundle. The butt should be squared off and the bundle tied.

**Tame and Wild Grass Sheaves**

As in preparing alfalfa and clover bundles, grasses for ex-
hibit should be gathered when they make the best hay. This
naturally is when the heads are well out of the boot and the
leaves are plentiful. Select a sample which has long, fine stems.
Coarse grasses are not desirable.

Fig. 6. Tie hay and forage sheaves loosely.

After cutting, the material should be taken to a dark airy
room and spread out in a thin layer so that the air can circulate
through the grass. After most of the moisture has escaped and
the sample is quite dry, it may be loosely tied and hung up by
the butt. Care should be taken to eliminate any foreign material
that might have been gathered with the sample.

In preparing the cured sample for exhibition, the bundle
should be made similar to the grain sheaf, except that the leaves
are not stripped off. Care should be taken to see that the bundle
is of uniform quality throughout. Pull out all discolored stems
and leaves. Most shows require grass sheaves to be three to five
inches in diameter at the butt. They should be tied tightly with
string about four to six inches from the butt and loosely near the
heads. A one-inch ribbon tied over the strings adds much to the
appearance of the bundle.

Packing Exhibits

Exhibits at a grain show are judged upon their appearance
when they reach the judges stand. Samples damaged in shipment must necessarily suffer in the eyes of the judge even though they may have been in excellent condition at the time of shipping.

Care in wrapping and packing sheaf exhibits and threshed grain samples will eliminate much of the hazard of shipment. Pecks samples should be placed in peck bags, double sacked, and securely tied. Tags bearing the name of the owner, address, and the name of the variety of grain should be attached to the inside of the bag as well as the outside. This is a protection in case the outside tag is torn off.

All sheaf samples should be wrapped in soft cloth and tightly packed in a well built box. Ears of corn should be wrapped individually in newspapers and packed in a tight box. This eliminates any shattering or mouse injury in transit. Never ship ears of corn in a bag.

Always ship exhibits by prepaid express far enough in advance of the show so that they will arrive in plenty of time. Plainly labeled boxes and bags will aid the superintendent of the show to enter exhibits properly. Carefully marked containers also help when exhibits are sent back to their owners. Often good exhibits become mixed or are lost due to the fact that containers are not suitable for shipping.

Educational Exhibits

A rather large number of county agricultural agents, Smith-Hughes agricultural instructors, committees of farmers organizations and individual farmers, send exhibits to fairs each year to display the products of a county or community and frequently such exhibits lose their educational value because they emphasize quantity and variety rather than quality.

Exhibits of this kind not only should have a sufficient amount of high grade material, but they should tell a definite story; a story of progress or achievement which the passerby may read at a glance. The story should be told in as simple and forceful a way as possible by the exhibits. It may be necessary to have a few signs or cards but limit the number and make them brief.

As a rule, the weakest point in educational exhibits is in trying to tell too much. Visitors at grain shows or fairs have no time to read a lot of figures. Detailed charts are out of place as
Fig. 7. The collective or community exhibit should be attractive and tell a story of quality.

they add neither force nor beauty. One idea, strikingly brought to the visitor's attention in a well arranged exhibit, is worth more than a half dozen equally good ones buried in a mass of figures.

A brief, catchy title does much to attract the visitor's attention; the attractiveness of the display material and its arrangement causes him to investigate further; a glance or two and he should know whether or not the exhibit is of sufficient interest for further study.