

# Ohio Agricultural Experiment Station.

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Department of Agronomy.

## SCORE CARD FOR DENT CORN.\*

1	Uniformity of ears as to shape, color, indentation and size of kernel.....	15
2	Maturity and seed condition .....	15
3	Shape of kernels and size of germs.....	15
4	Weight of ears .....	15
5	Color; grain and cob.....	5
6	Space between rows.....	5
7	Length.....	10
8	Circumference.....	5
9	Butts.....	5
10	Tips.....	5
11	Percent of grain.....	5
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		100

## CORN JUDGING.

### Explanation of Score Card.

OBJECT—The aim of an individual who is judging an exhibition of corn should be to pick out the best *seed* corn, i. e. the corn which will produce the most bushels of shelled corn per acre, of the highest quality.

\*Adopted as the official score card of the Ohio Experiment Station and Department of Agronomy. Ohio State University, 1906-7.

## **1—Uniformity**

The ears exhibited should be uniform in size, shape, color, indentation, and size of kernel. Uniformity, or trueness to the type determined upon, is essential to any progress in corn improvement. More hope would be entertained for a corn breeder whose selections were uniformly bad (for he would sometime find out that he was wrong) than for one whose selections showed a lack of any appreciation for uniformity. Uniformity of kernels is essential for machine planting.

## **2—Maturity and Seed Condition**

Indicated by solidity of ears and of kernels on the ear; by complete filling out of kernels, by absence of rot, mold or insect injury and by brightness of color, especially of germ. While the germination test is the final arbiter, the practiced eye can determine much.

## **3—Shape of Kernels and Size of Germs**

Kernels should broaden gradually from tip to crown with edges straight so that they touch the full length and should be wedge-shaped without coming to a point. They should be full and plump at the tip. Observed from the edge they should have uniform thickness. Thin, shrunken, sharp-pointed kernels are very objectionable.

A large germ is indicative of high food value and vigor of growth.

## **4—Weight of Ear**

To be determined by the use of scales on the basis of air dry corn.

Experiments have shown that the weight of the seed ear is one of the best indications of productive ability. When the stand, conditions of fertility, and other environments, are known to be uniform, weight of ear is the important thing; in the absence of this knowledge it is still very important.

Ear-row tests have thus far shown that total weight of ear is a little better guide to the productiveness of a seed ear than weight of shelled corn.

## **5—Color: Grain and Cob**

Grain should be free from mixture. Uncertain tints in cob and off-colored kernels are evidences of mixing. White corn should have white cobs; yellow corn should have red cobs.

## **6—Space Between Rows**

While the rows may possibly be too compact at the top of the kernels, wide furrows between the rows (commonly found in ears having broad shallow kernels) are very undesirable. Space between kernels in the row is also objectionable, but is covered under 2 and 3.

## **7—Length**

There is no such thing as excessive length in a fully matured and well proportioned ear. Length will vary in different localities. The maximum length for a given locality will be worked out by the corn growers in that locality and will usually be indicated by the best exhibits. An ear falling two inches below the maximum should receive the full cut of one point.

## **8—Circumference**

Circumference is measured at one-third the distance from butt to tip. It should not exceed four-fifths, nor fall below three-fourths the length.

## **9—Butts**

Kernels should extend in regular rows over the butt and against the shank. The shank, however, should have sufficient size to support the ear. Swelled, open or badly compressed butts, as well as those having kernels of irregular size are objectionable.

## **10—Tips**

The tips should have kernels of even size, well dented and preferably in regular rows. An undersized ear is more objectionable with a completely capped tip than with a little bare cob. A sharply tapering tip is not desirable.

## **11—Percent of Grain**

In ear-row test work the highest yielding ears seldom have shown the highest percent of grain. No cut is advised on 83 per cent of grain.

It will be noticed that this score card departs somewhat from the conventional arrangement. The thought has been to arrange the several points to be considered in the order of their merit in the selection of seed corn, waiving all questions of convenience in exposition, or use of card. This has been done believing that the corn grower would better have his attention called to the important things first, letting the points which at present are largely theoretical take their place at the bottom of the card.

Shape of ear is omitted for the reason that evidence has not yet been found which will justify discrimination against an ear that has satisfied the other requirements of the card. Careful study is being made of the relation of shape of ear to production. When it is found that a certain shape, either is essential to, or interferes with maximum production, this item will be reinstated in the score card.

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