

JUDGING CROP SAMPLES

We grow crops for several purposes:

- as seed for next year's crop
- as feed for livestock
- to process as food

The suitability of crops for each type of usage depends upon several factors. By judging crop samples, you can learn to identify major differences in crop type and to recognize high quality products.

When judging seed samples, keep in mind what the seed is used for: to produce a vigorous, even stand of plants which will give a high yield of good quality crop. If seed is to grow properly, it must be *uniform, fully mature and free of damage from weather, insects, diseases or machinery.*

Maturity:

- mature kernels are plump and of normal colour
- green or shriveled seed shows that the crop was not mature when harvested
- moisture content should allow for safe storage

Machinery damage:

- shows up as cracked or broken kernels
- over-drying will turn grain from yellow to dark brown

Weather damage:

- reduces the length of time needed for the germination of the seed
- sprouted kernels and bleached seed indicates damage

Insect damage:

- can be identified by holes in the seed and by the presence of flour-like material in the sample.

Disease:

- signs include moldy seeds, discoloured seeds and the presence of sooty looking spores (black spots) on the seed

Impurities:

- reduce the amount of good seed in the sample and cause difficulties in seeding
- includes: seeds from other crops, straw, chaff, mud, weeds or other foreign materials

COB CORN

MATURITY AND MOISTURE

- all kernels should be completely dented
- kernels shouldn't move when cob twisted
- kernels should be dry and tight together

PERFECT SCORE
30

FREEDOM FROM DAMAGE

- no bleached or discoloured kernels
- no rodent, insect or mechanical damage
- free from disease (mold, sooty spores)
- no sprouted kernels

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UNIFORMITY

- all kernels are same size and shape
- moisture content is uniform for all cobs

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DEVELOPMENT OF THE EAR

- ears should be filled with kernels to the tip
- ears should not be above average length

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SEED SAMPLE

FREEDOM FROM DAMAGE

- no cracked, broken or dark brown kernels
- weather damage reduces chance of germination
- no discolouration, mold or sooty spores
- no holes in seed or flour-like material

PERFECT SCORE
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FREEDOM FROM IMPURITIES

- no foreign seeds, straw, weeds, chaff, mud

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SIZE AND TEST WEIGHT

- varies according to crop
- low weight indicates damage or immaturity

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UNIFORMITY

- uniform size, shape and colour

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MATURITY AND PLUMPNESS

- mature kernels are plump with normal colour
- no green or shriveled seeds; correct moisture content

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