# **CORN Descriptor Form**

1. (Form created by *Seeds of Diversity Canada* for *The Bauta Family Initiative on Canadian Seed Security.)*
2. Please observe several plants in the same bed/row. Please use a separate form for each variety.
3. *If you cannot answer any of these questions, just leave them blank*
4. For questions asking for averages, please take 10 measurements from different plants. See chart on last page.
5. **Variety name** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[ ] Variety name is unknown**
6. **Observer** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. **Location** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. **Population size** How many seeds did you plant in total? \_\_\_\_\_\_\_\_\_
9. **Germination rate** What percent of the seeds germinated? \_\_\_\_\_\_\_\_\_
10. **Final Population** How many plants did you harvest seeds from at the end of the season? \_\_\_\_\_\_\_\_\_

**Dates**

Date when you sowed the seeds? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date when 50% of the seeds germinated? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date when tassels (male flowers) appeared on 50% of the crop? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date when silks (female flowers) appeared on 50% of the crop? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date when 50% of the plants have a dry leaf ear? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date when corn was ready to harvest as fresh corn (if applicable)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date when corn was ready to harvest for seed? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Rogueing for Seed Production**

Rogueing should be done periodically throughout the season especially:

* At the seedling stage for lack of vigour
* As plants grow for off-type foliage
* At flowering for off-type flowers
* At fruiting for off-type fruits
* At harvest for ability to mature fruit/dry down

***\*The best time to rogue for off- types is before flowers start to appear. After flowers appear rogueing should focus more on fruits and seeds***

**Early/Mid-Season**

Roughly how many plants were removed after rogueing for seedling vigour? (Typically remove about 10% of weakest seedlings and any seedlings showing signs of disease after germination)

\_\_\_\_\_\_\_\_\_\_\_\_ (# plants removed) or \_\_\_\_\_\_\_\_\_\_ % of plants removed

What is the average height of the plant, from the ground to the base of the tassel? (observed after milk stage - i.e. about 18 to 22 days after silking, the kernels are mostly yellow and contain "milky" white fluid )

\_\_\_\_\_\_\_\_ cm



What is the average number of leaves present above the uppermost ear including ear leaf?

\_\_\_\_\_\_\_\_

What is the stem colour, observed between the two topmost ears at flowering?

Green Sun red Red Purple Brown

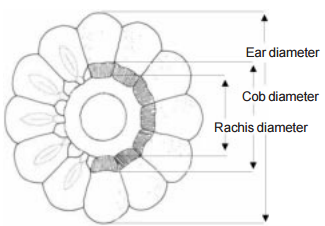
**Late Season / Plant Maturity**

What is the average height of the plant at physiological maturity (the point at which the cob has fully ripened), from the ground to highest point on of the tassel (the small flowers at the top of corn)?

\_\_\_\_\_\_\_\_\_\_\_\_ cm

What is the average diameter of the top ear when measured at the center of the ear (the cob and surrounding husk), at physiological maturity?

\_\_\_\_\_\_\_\_\_\_\_\_ cm



What is the average number of ears, which have well developed kernels, present per plant? \_\_\_\_\_\_\_\_\_\_\_\_

What is the average number of kernel rows on the top ear of the stalks? \_\_\_\_\_\_\_\_\_\_\_\_

(count the number of kernels around the diameter of the cob)

What is the average number of nodes (where leaves, ears and stems connect) on the primary stalk including the peduncle node (node that supports the flower cluster )?

\_\_\_\_\_\_\_\_\_\_\_\_

How much lodging (bending or flattening) has occurred in the field which can be attributed to root failure, *i.e.* the cause of the lodging is not the result of stalk damage?

None Few Some Half Many Most

How much lodging, caused by stalk failure, has occurred in the field?

None Few Some Half Many Most

What is the overall quality of the husk cover?

Poor Intermediate Good

How much damage has been caused by ear rot or insects?

None Little Severe

Please describe the kernel row arrangement using the uppermost ear?

Regular Irregular Straight Spiral

**Seeds**

What is the colour of the kernels?

White Yellow Purple Mixed

Brown Orange Spotted/Streaked White cap

Red Other \_\_\_\_\_\_\_\_\_\_\_\_\_

What is the shape of the upper surface of the kernel?

Shrunken Indented Level

Rounded Pointed Strongly pointed

What is the kernel type of this corn post-harvest?

Floury Semi-floury Dent Semi-dent

Semi-flint Flint Pop Sweet

Opaque Waxy

What is the total weight of seeds harvested from planted population? \_\_\_\_\_\_\_\_g

**Disease**

Are there any signs of disease on the plants or fruit? (if so please take a picture and include a brief description)

Yes (picture) No

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Based on your knowledge and growing experience please rate this variety on the following characteristics on a scale from 1-5 (1 being very poor, 5 being excellent)**

**Productivity (how much/often did plants produce fruits): 1 2 3 4 5**

**Uniformity of fruit ripening (across entire plot): 1 2 3 4 5**

**Flavour: 1 2 3 4 5**

**Disease resistance: 1 2 3 4 5**

**Uniformity of fruit size: 1 2 3 4 5**

**Uniformity of fruit shape: 1 2 3 4 5**

**Suitability for your location/climate: 1 2 3 4 5**

**General customer appeal: 1 2 3 4 5**

**Efficiency of harvesting: 1 2 3 4 5**

**Ease of transport/storage: 1 2 3 4 5**

**Would you want to grow this variety again?** Yes No

**Please list any pros/cons related to growing this variety.**

Pros Cons

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Measurement Chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Height at Milk Stage** | **# Leaves above ear** | **Height at Maturity** | **Ear Diameter** | **# Ears** | **# Kernel rows** | **# of Nodes** |
| **1** |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  |  |
| **5** |  |  |  |  |  |  |  |
| **6** |  |  |  |  |  |  |  |
| **7** |  |  |  |  |  |  |  |
| **8** |  |  |  |  |  |  |  |
| **9** |  |  |  |  |  |  |  |
| **10** |  |  |  |  |  |  |  |

**Please write any notes or special observations that you would like to mention. Thank you for your help!**