**WHEAT**

*Triticum aestivum*

**Equipment**

A pair of scissors, pointed forceps, needle, magnifying lens, camel hair brush, Petri dish, methylated spirit, butter paper bag (4” x 2”) tag and lead pencil.

**Procedure**

Wheat is a naturally self- pollinated crop. Anthesis first begins above the middle of the spikelet and move both upward and downward. The Upper Spikelet’s are last to bloom. Generally, a wheat spike completes anthesis 2-3 days after first anther appears.

**Selfing**

As wheat is a naturally self-pollinated crop. To avoid even the slightest chances of foreign pollen contamination, cover the spike With a butter paper bag.

**Crossing**

***Emasculation***

1. In the evening select the desirable plant and retain only 8-15 lateral spikelets on a Spike and remove the rest.
2. Remove 3-4 florets from the base and 4-5 florets from the apex of the spike and central floret from each spikelet.
3. Clip 1/3 of the upper portion of the floret with a pair of scissors and remove the anthers before dehiscence with a fine forceps.
4. Take care that carpel is not injured
5. Cover the spike so emasculated with a butter paper bag.

***Pollination***

1. In the evening. bag the spike of male parent before opening of the anthers.
2. Next morning collect the pollen grains from the bagged male parent in a petri dish
3. Apply pollen with a soft camel hair brush on the bifid hairy stigma of the emasculated floret or place the mature anthers as such within the floret.
4. Cover the spike again with respective butter paper bag at least until fertilization.

**Labelling**

Tag the plant, indicating the name of the cross, date of pollination and your signature. Write the-female parent first and then the name of the pollen parent (male). Always use lead Pencil as it is water proof and will, not be damaged during rains or due to dew.