

# BRIEF NOTE ON CROP CUTTING

## EXPERIMENTS

1. CCE is conducted for all notified crops.
2. Number of CCE for crops notified:
  - at hobli level is 10.
  - at Gram Panchayat level is 4 (for Ground nut crop it is 8).
  - Two experiments in a village in separate survey/sub-survey number.
  - If notified crop is grown in only one village in the notified area and crop is grown in two or more than two survey/sub-survey numbers in that village, all the CCE's are to be done in this village as per the availability of survey/sub-survey number.
3. Stages of CCE:
  - random selection of village
  - random selection of survey/sub-survey number
  - random selection of plot
4. Conditions for conducting CCE:
  - In a village there should be at least two survey/sub-survey number growing the notified crop.
  - It should not be grown for seed purpose/crop competition/exhibition/Fodder purpose.
  - If it is a mixed crop, crop selected for CCE should be more than 10%.
  - Area of crop grown should be more than 10x5 mts or 5x5 mts as per the crop selected.

-CCE to be conducted in all conditions except prevented sowing as per operational guidelines of PMFBY.

5. Plot size and method:

-10x5 mts for Tur, Cotton, Sunflower, Caster and Tobacco

-5x5 mts for all other crops

-There are two methods of conducting CCE

1.Row method and 2. Non-row method

6. Primary worker allocated for conducting of CCEs are village accountant of Revenue, AAO/AO of Agriculture, HA/AHO of Horticulture and Secretary/PDO of RDPR departments.

STAGES:

I STAGE

1. Random selection of village is done by software.
2. Random selection of two survey/sub-survey number in the selected village is done by software.
3. Allotment of primary worker/assignment of primary worker is also done. in software. Further re-assignment if required, will be done by District Statistical Officer.

II stage – Form 1- Selection of Survey/sub-survey number:

1. For each experiment, a randomly selected village and randomly selected survey/sub-survey numbers are given. Primary worker has to first go to selected survey/sub-survey number and find whether selected crop is grown in that survey/sub-survey number. If selected crop is not grown in the selected survey/sub-survey number go to next higher survey/sub survey number once you come to highest survey/sub-survey number

without finding crop, then start from the 1<sup>st</sup> survey/sub-survey number, continue this procedure till you exhaust all survey/sub-survey numbers. If you do not find at least two survey/sub-survey numbers having crop, then app will show new village.

2. Once a survey/sub-survey number is selected, select four survey/sub-survey numbers as explained in the annexure where the selected crop is grown. Do the same step for randomly selected 2<sup>nd</sup> survey/sub-survey number.
3. There should be at least two survey/sub-survey number where selected crop is grown. If selected crop is grown in less than two survey/sub-survey number in that village then reject the village and go to next village. This procedure is continued till all the villages are exhausted.

Note: Condition of conducting CCE are to be satisfied in selection of above survey/sub-survey number. Selected survey/sub-survey numbers are to be uploaded to “samrakshane” portal through CCE mobile app.

4. Information in Form 1:

- Area of the crop
- Mix/pure crop
- Probable harvest date  
(7 days gap to be given in case of condition iv(i) b) and 1(d)of operational guidelines of PMFBY)
- GPS photo with farmer and PW

5. Upload the information and confirm it .

### III Form2-Conducting of CCE:

In the randomly selected survey/sub-survey number shown in mobile app, if there are more than one field then select the first field where crop is grown starting from the South-West corner of the survey/sub-survey number.

1. If the field is not rectangle select the maximum size of the field that constitutes a rectangle with in the field.Measure the length and breadth of the plots in steps (for row method rows in numbers) (deduction of the 7/13 steps depending upon plot sizes 5x5/10x5 is done by mobile app).(Refer CCE-Manual for examples)
2. Then the random numbers given for the length/breadth/row the starting point for plot is calculated by mobile app.
3. Using the above points (3 & 4) mark 10x5 or 5x5 plot accordingly in the plot.
4. Do the harvesting of crop with in the boundary of selected plot.
5. Take the wet weight of the produce obtained from above CCE.  
Take the weight of By-product (for selected crops only).
6. Capturing the GPS photos and videos
  1. Whole field
  2. Selected plot
  3. Harvesting
  4. Wet Yield Weighing
7. Enter the wet yield weight, By-product weight and other information and upload the information with photos and videos.

8. In case of multipicking crop, picking wise yield is entered in mobile app, after last picking the data is uploaded (Multipicking Crops:Cotton, Tomato, Red Chilli, Brinjal, Beans)

**Please Note:**

1. For any other clarification please refer CCE-manual in Samrakshane.
2. Website Address:[Www.ccesamrashane.Karnataka.gov.in](http://www.ccesamrashane.Karnataka.gov.in)

**Proposed Change in 1+4 survey numbers selection**

For doing Form-1, the 1<sup>st</sup> survey/sub survey number is given randomly by mobile App at the time of downloading Form-1 for an experiment. You get two such survey/sub survey number for two CCE in a village.

After down loading Form-1, primary worker will go to village to fill up the Form-1 details for 1+4 survey/sub survey number for each experiment.

If there is no sown area in the randomly given survey/sub survey number, go to next survey/sub survey number (Mobile will give all the next survey/sub survey number in that main survey number, when you put immediate next survey number) If there is no sown area in this survey/sub survey number, go to next. This step will be continued till you get the crop (where CCE can be done as per conditions in the guidelines) in at least two survey/sub survey number in that village. If there is no sown area in at least two survey/sub survey numbers, the mobile will show the randomly selected next village by recording no crop in this village.

**Selection of 1+4 survey/sub survey number for a CCE:**

First survey/sub survey number is selected as above using the successive survey/sub survey number.

The same procedure is continues to select remaining four survey/sub survey number

Example: Let 10 be the 1<sup>st</sup> survey number selected as per above procedure let there be survey/sub survey numbers like below in a village after 10, 10/1, 10/1A, 10/1B, 10/2, 11, 12/1, 12/2/A, 12/2/B, 12/2/C, 13, 14/1, 14/2, 15/A, 15/B . . . . .

Now mobile shows 10, 10/1, 10/1/A, 10/1/B, 10/2. Primary worker has to go through these survey/sub survey numbers and see that as per guidelines there is crop (Guidelines means crop is not grown for

competitions, for fodder, mixture percentage is more than 10, fields has the size more than plot size).

If there is no sown area in all the sub survey numbers of 10, then put 11 in mobile, it shows all the sub survey numbers in 11. If there is no sown area in 11 and its sub survey numbers, you put 12. Then mobile shows 12 and all the sub survey numbers in 12. You continue this procedure till you get the required number of survey/sub survey numbers.

This process will be continued till you get 4 more survey/sub survey number for an experiment. In this example let there be crop in 10/1B, 11, 12/1, 12/2/C, 14/1, 14/2, 15/B. In this case 1<sup>st</sup> selection is 10 and next survey/sub survey number comes in mobile is 10/1, 10/1A, 10/1/B, 10/2. Primary worker goes to survey/sub survey number 10/1 and finds no sown area then goes to 10/1A. Here in 10/1/A also there is no sown area then goes to 10/1B. He finds crop in this sub survey number and selects and collects the information necessary for Form-1. In same way he selects 11, 12/1 and 12/2/C. Primary worker collects all the information for Form-1 for 10, 10/1B, 11, 12/1 and 12/2/C and uploads form-1.

Please note that in a village if there are more than one and less than Ten survey/sub survey numbers with selected crop all those will be selected for Form-1 and uploaded.

## Annexure-1

### Steps to arrive average yield.

1. Check whether crop is mixed pure
2. If pure go to step 5
3. Take the proportion of the selected crop in the mixed given in %
4. Let it be x., If it is pure, then x=100
5. Decide whether crop is local or hybrid.
6. Take the driage ratio y given in %
7. Then you get actual yield of the plot.

$$\text{Actual yield} = \text{yield reported (local/HYV/hybrid)} * (y/100) * (100/x)$$

driage ratio to be considered is if crop is local consider driage ratio of local variety, if crop is High yielding variety or Hybrid variety consider the driage ratio of High yield variety or Hybrid variety.

8. Total all actual yields (derived by above method) reported in that IU and divide by reported numbers, you will get average yield of IU
9. Convert average plot yield into hectare yield.
10. For this check what plot size is.
11. If plot size is 5mt\* 5mt, then Hectare yield =average plot yield \* 400
12. If plot size is 10mt \* 5mt, then Hectare yield = average plot yield \* 200
13. All the crops are measured in Average Yield in Kgs/Hect. except Sugarcane  
Which is measured in Tons/Hect.

### Formula for calculation of Average Yield

**Yield of the Plot size 5mt x5mt** = wet yield of the plot as obtained at the time of conducting CCE X ( Driage Ratio of concerned variety /100)( if traditional take Driage Ratio of traditional otherwise take Driage Ratio of High yield or Hybrid variety )X(100/Pure or mixed proportion of the selected crop) X400 in kgs/hec

**Average yield of IU** =Total all the plot yields of that crop in that IU where CCE is conducted /Total number of Crop Cutting Experiments conducted for that crop in that IU.

**Yield of the Plot size 10mt x 5mt** = wet yield of the plot as obtained at the time of conducting CCE X ( Driage Ratio of concerned Variety /100 ( if traditional take Driage Ratio of traditaional otherwise take Driage Ratio of High yield or Hybrid variety) X (100/Pure or Mixed Proportion of the selected crop) X 200 In kgs/hec for Tur, Castor, Cotton, Tobacco and Sunflower.

**Average Yield of IU** =Total all the plot yields of that crop in that IU where CCE is conducted / Total number of Crop Cutting Experiments conducted for that crop in that IU.

**Note** : Here the Driage Ratio for irrigated and Un-Irrigated Paddy, Jower, Ragi, Maize, Bajra, Tur, Groundnut, Sunflower, Soyabean and Chillies are given separately. Insurance notification of Irrigated and Un-Irrigated crops are separately notified for each insurance unit. Hence in such IU all the experiments are either Irrigated or Un-Irrigated. Accordingly the Driage ratio to be considered either Irrigated or Un- Irrigated as per the notification.

**Note on methodology to be adopted for calculating the average Yield of an Insurance Unit for a particular crop.**

➤ **There are two types of Insurance Units**

- Gram Panchayat ( GP)/Urban Local Bodies (ULB)for “ Major crops” – Higher unit for this IU is generally Hobli
- Hobli for “Other crops” –Higher unit for this IU is the taluk

➤ **IU as Gram Panchayat /ULB for a particular crop**

- Number of experiment to be conducted is 4 (2 each in one village i.e 2x2). In case of Ground nut it is 8 CCE per IU (2x4). ( In case there is a less number of village available in an IU, then all the required CCE would have been conducted in the available villages. However, required number of CCE per IU will remain same).
- If the number of experiments are equal to 4 in a GP/ULB-IU then calculate average of those 4 experiments (Average of 8 in case of Grountnut).
- If the number of experiments are less than 4 in a GP-IU (or less than 8 in case of Groundnut) then the average yield of the higher unit-i.e Hobli shall be considered.
- While considering the higher unit the following methodology should be adopted.

➤ **IU within Single Hobli**

- If the all the Village of the GP, where the number of experiments carried is less than 4, falls in a single hobli, then take all the villages of that hobli where experiments were conducted and then take average of all the experiments. Show that average against that GP-IU. ( It is clarified that if any village of other GP(s) of same hobli lies outside that hobli then the CCE yield of those village shall not be considered for calculating the average of the hobli).

➤ **If village of a GP/ULB falls in more than one Hobli**

- Calculate the average yield for each of the hobli separately by taking the average of all CCE of all the villages of that hobli where the CCE have been conducted and then take a weighted average based on the number of villages belonging to each of the hobli and the IU.

- Example –GP has 5 villages of which 3 villages pertain to Hobli number 1 and 2 villages pertain to Hobli number 2 then average to be calculated as  $(AH_1 \times 3 + AH_2 \times 2) / 5$  where AH means Average of the Hobli.
- **In case if the GP/ULB is equal to or greater than a hobli and is within a taluk** then consider the average of the taluk by taking average of all the CCE of all the villages of that taluk where the CCE have been conducted.
- **In case if a GP/ULB crosses over a taluk** especially in case of ULBs then calculate the average yield for each of the taluk separately by taking the average of all the CCE of all the villages of that taluk where the CCE have been conducted and then take a weighted average based on the number of villages belonging to each of the taluks and the IU
- **Example** -GP/ULB has 15 villages of which 10 villages pertain to taluk number 1 and 5 villages pertain to taluk number 2 then average to be calculated as  $(AT_1 \times 10 + AT_2 \times 5) / 15$  where AT means Average of the Taluk. Similar methodology will be adopted if the IU crosses more than two taluks also.
- **If the IU (GP/ULB) consist of two or more complete taluks** then the average of all the CCE of all the villages of that district where CCE has been conducted will be considered.
- The data would be populated in a table as shown in Annexure A.

➤ **IU as Hobli for a Particular crop**

- Number of experiment to be conducted is 10 (2 in each village i.e.  $2 \times 5$ )
- If the number of experiments are equal to 10 in a Hobli-IU then calculate average of those 10 experiments.
- If the number of experiments are less than 10 in a Hobli-IU then the average yield of the higher unit i.e taluk to be considered.
- While considering the higher unit the following methodology should be adopted.

➤ **Taluk**

- The Hoblis are within a taluk. Therefore if the required experiments for a crop are not carried in a Hobli, then take the average of all the CCE of all the villages of the taluk to which the particular Hobli belongs. Show that average against that Hobli-IU.
- Always consider regular taluk for this purpose (even in case of special taluks also)

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