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GOVERNMENT OF KERALA

**INSTRUCTIONS FOR FIELD STAFF  
ON  
AREA AND YIELD ESTIMATION  
SURVEYS**

**1980-81**

*Issued by*

**THE AGRICULTURAL DIVISION  
BUREAU OF ECONOMICS AND STATISTICS  
TRIVANDRUM**

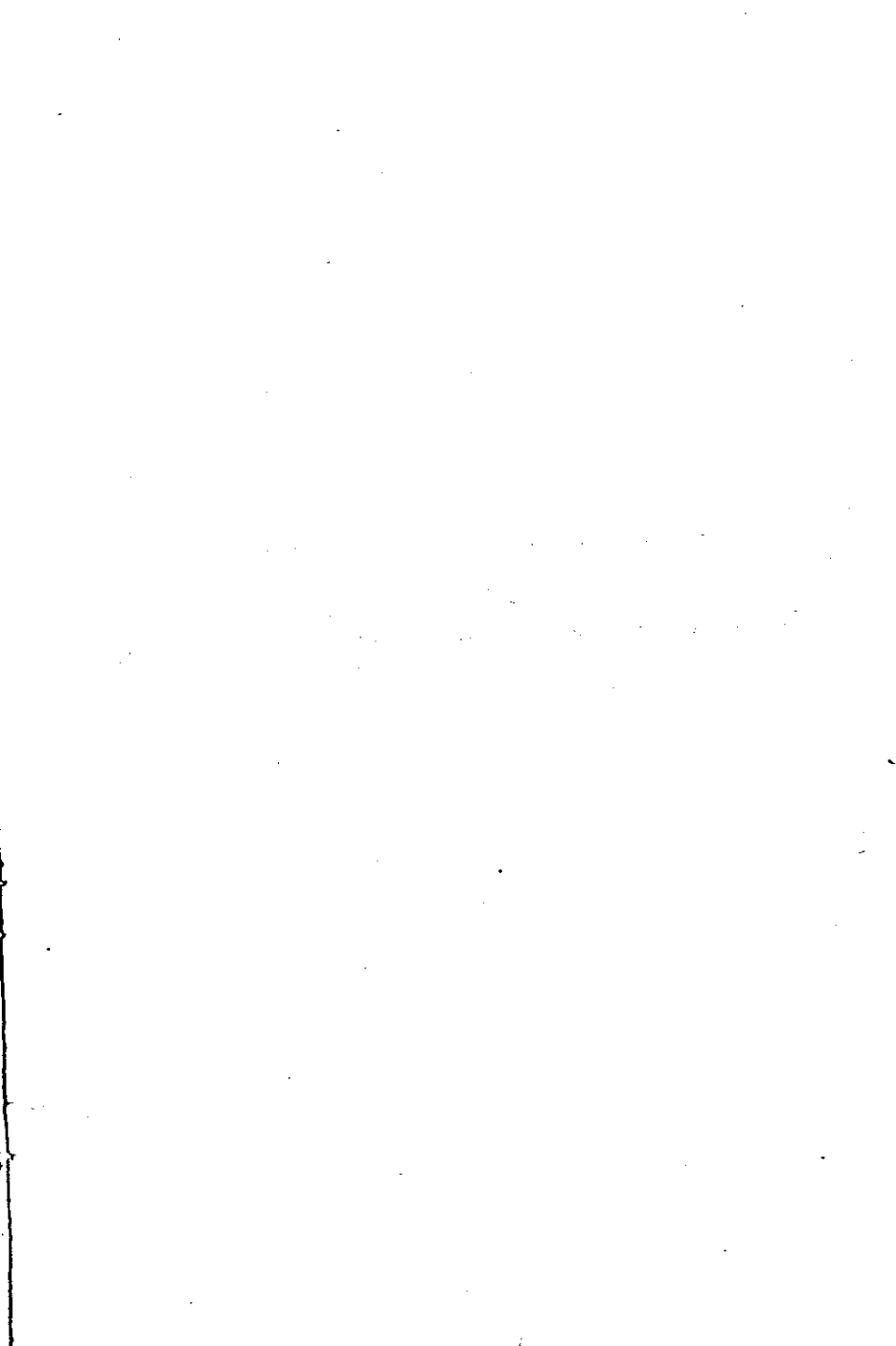
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# GOVERNMENT OF KERALA

## Bureau of Economics and Statistics

### TIMELY REPORTING SURVEY TO COLLECT DATA ON AGRICULTURAL STATISTICS 1980-81

#### INSTRUCTIONS TO FIELD WORKERS

##### 1. Introduction

Prior to 1975-76, estimates on various parameters relating to Agricultural Statistics were framed on the basis of the data collected annually through land utilisation surveys organised by the Department. (The estimates so obtained at taluk or even at district level could not be assured of the desired precision due to the small sampling fraction adopted for these surveys). In the case of minor crops, only state level estimates could be framed. Crop estimation surveys to determine yield of crops were confined to paddy alone. The productivity rates of other crops, both major and minor used in arriving at production figures were only conventional estimates or at best those arrived at from adhoc surveys conducted from time to time on some crops.

The quality and the coverage of Agricultural Statistics thus available left much to be desired for. It was in this context that the Government of India came up to finance a scheme for establishing an agency in the state for reporting agricultural statistics as part of an All India scheme for improvement of Agricultural Statistics, namely, the Timely Reporting Survey. Whereas the main scheme (TRS) is designed to suit the method of collection of agricultural statistics in the reporting states, a variant of this scheme to suit the conditions of collection of agricultural statistics was introduced in the non-reporting states of Kerala, West Bengal and Orissa.

The EARCS, as this scheme is known, envisages the collection of data for estimating the various parameters under area and yield statistics for each agricultural year. At the same time it is so designed that the entire area of the state will be completely enumerated at the end of the proposed six rounds of the survey by completely enumerating in each round all the selected revenue villages which are taken

as the last stage units of sampling. Yield estimation surveys for an year will be confined to these villages selected for area enumeration during that year.

The survey was started in the state in 1975-76 and 10% of the villages (134) were completely enumerated. In the next year 1976-77, 15% of the villages (200) selected were enumerated and in the subsequent three years 20% of the villages each (265) were selected and enumerated. In this sixth round (1980-81) it is proposed to select and enumerate the remaining 15% of the villages (199).

A repeat sample of 25 per cent of the Investigator units enumerated during 1979-80 will also be enumerated during 1980-81 to study the crop changes.

Yield estimation surveys on paddy, tapioca, coconut, arecanut, cashew and pepper will be conducted regularly every year. In the case of minor crops, these surveys will be conducted only periodically, covering four crops during each round. The last stage units of sampling in crop estimation surveys are taken as the survey/sub-division numbers.

The details of land utilisation data on perennial crops, irrigation, etc., will be collected only once in a year while information on area under seasonal crops will be collected separately for each season. In order to get complete coverage of all seasonal and short duration crops, the wet land plots will be visited three times in a year each visit corresponding to autumn, winter and summer respectively. Dry land plots will be visited two times in an agricultural year.

## 2. Programme of field work for 1980-81

A. *Area Enumeration.*—Area enumeration will be conducted in the selected villages and investigator units given in Appendix III. A list of survey/subdivision numbers, according to basic tax register will be prepared for each selected village/investigator unit. Each village will be divided into a number of Investigator zones comprising a certain number of survey/subdivisions. An Investigator will be in charge of the field work in a unit. The boundary of each investigator unit will be fixed by the Statistical Inspector so that the work load of investigators is more or less the same.

(a) *Wet land*.—Wet and dry lands will be enumerated separately. Wet lands will be visited three times during a year, each visit corresponding to each of the following three seasons into which the agricultural year is divided:—

	<i>Season</i>	<i>Months</i>
(i)	Autumn	July to October
(ii)	Winter	November to February
(iii)	Summer	March to June

During the visit to the wet lands in a season, the details of seasonal and annual crops cultivated in that season will be recorded in the prescribed form. The data on land utilisation and data on perennial crops and irrigation need be collected during the summer visit to the wet lands, (last visit).

The collection of data in each season from the wet lands will be completed according to the following time schedule:—

<i>Season</i>	<i>Completion of field work</i>	<i>Date of receipt of the village abstract at R. T. C.</i>
Autumn	August 1980	30.9.1980
Winter	November 1980	5.1.1981
Summer	March 1981	15.5.1981

(b) *Dry land*.—The dry land plots will be enumerated two times in a year. In the first visit, details on seasonal and annual crops cultivated during autumn season will be collected. In the second visit data on land utilisation, perennial crops and irrigation will be collected. During this visit data on the area under seasonal and annual crops falling under winter and summer seasons will also be collected. The first visit to the dry lands will follow closely the first visit to the wet lands. The crop abstract report relating to dry lands following the first visit will be forwarded to the Regional Office before 5th January 1981.

(c) The data on seasonal crops collected from both wet and dry land for all the visits prescribed will relate to all crops harvested/will be harvested in the agricultural year in the corresponding seasons and entries will be made against the appropriate season in the spaces provided in the schedules. The standing crops which will be harvested only in the next year will be entered against the column for summer indicating the fact by marking the area with the letter C.

It may be noted that the gross area concept will be followed with regard to the recording of area under crops. According to this concept, the area under various crops in one acre of land can be more than one acre according to the intensity of crops. The following example will make this clear.

Let the crops grown in a particular survey number having net area of 50 cents are as follows:—

1. Banana—400 (nos.)
2. Pineapple—1000 (nos.)
3. Tubers—10 cents
4. Tapioca—5 cents

Converting the crops given in numbers into area adopting the standards per acre, the area under banana will be 50 cents (800 per acre) and pineapple—20 cents (5000 per acre). So the gross cropped area will be  $50 + 20 + 10 + 5 = 85$  cents.

(d) There are six forms for collection and compilation of data on area enumeration. They are:

- |                 |                                          |
|-----------------|------------------------------------------|
| (i) Form A      | .. Basic details of selected villages    |
| (ii) Form I     | .. Field diary of Investigator           |
| (iii) Form II   | .. Land Utilisation and Irrigation       |
| (iv) Form III A | .. Area under seasonal crops             |
| (v) Form III B  | .. Area under annual and perennial crops |
| (vi) Form IV    | .. Crop abstract report                  |

Details regarding the agency for field work, method of filling up the schedules, sources of data and the time schedule to be followed are given below:

### 1. Form A—Basic details of selected villages

The details required in this form are to be collected from the village office records and by local enquiry. These details should be collected by the Statistical Inspector himself and the entries in the form will be completed by the end of the survey.

*Item 1 to 3* — Self explanatory.

*Item 4 (a)*—Natural region—The natural region (low land, mid land and high land) of the village in the census or village records should be clearly noted here.



*Item 4 (b)*—Soil type—The common type of soil found in the village should be noted here. The important soil types found in the State are the following:—

1. Sandy soil—Found as a strip in the coastal areas which varies from sandy loam to pure sand in texture.
2. Alluvial soil—Found on river banks mainly in parts of Devicolum, Vaikom, Alwaye, Kunnathunad and Chowghat Taluks.
3. Laterite soil—Found in nearly one third of the area in the State and is predominant in the mid land region.
4. Forest soil—Found mainly in the hilly regions in Trivandrum, Quilon and Kottayam Districts.
5. Peaty soil or kari soil—Mainly found in Kuttanad region and the surrounding areas of Vembanad lake.
6. Black soil—Confined to Palghat District. Cotton is the main crop grown in these areas.
7. Red soil—Found mainly in Trivandrum and Neyyattinkara Taluks.

*Items 5 and 6*—To be collected from the basic tax and other registers kept in the village offices. All the items are self explanatory.

*Item 7*—The month(s) in which the major part of the sowing/planting and harvesting operations of important seasonal crops grown in the village, is carried out during the agricultural year 1980-81 will be recorded in this block. The name of the crop, its code number (given in Appendix II) and the month(s) in which the operations are carried out will be noted. The months may be given code numbers as given below:

January	01	May	05	September	09
February	02	June	06	October	10
March	03	July	07	November	11
April	04	August	08	December	12

Form A should be prepared in duplicate by the end of May 1981. One copy should be attached as a facing sheet to Form II Register and one copy should be sent to the headquarters by the end of June 1981.

## 2. Form I—Field diary of the Investigator

This is the basic record for collection of data on area enumeration. (The details required in all the remaining forms will have to be copied from this record). This will be supplied as registers containing 200 forms. The following points should be strictly adhered to while filling up this form:—

(a) The entries should be made in ink preferably with ball pen. This form may be completed after the field work in each plot is over. In any case the details of enumeration must be recorded at the end of each day's field work.

(b) The entries should be clear and legible. The register is to be kept as a permanent record and so should be handled carefully.

(c) All Inspecting Officers should verify the entries made in this form, during their regular inspection.

(d) The names of taluk, village, Investigator unit and the Investigator should be entered on the first page of the register along with the type of land (Dry/Wet).

(e) When an Investigator is relieved from field work in a unit the Statistical Inspector should see that the field diary is obtained from the Investigator before his relief. The periods during which each Investigator made entries in the diary should be noted on the 1st page of the register.

(f) One form is to be used for one unit of enumeration. A unit can be one plot or a group of plots as described below. In the Travancore-Cochin area where the village litho maps are available, identification is easier for a subdivision as shown in the map than for a subdivision in the basic tax register. In such cases the survey number (or the subdivision number) as in the litho map may be considered as a unit for area enumeration, provided that entire area of the survey (or subdivision) number as in the litho map is classified as wet or dry (note that dry land includes Purampoke and Tarisu) as per the basic tax register. In other cases, namely the litho subdivision includes dry and wet area, the subdivision number as in the

basic tax register should be considered as the unit of enumeration. The area under crops in reserve forest areas but included in our survey may be recorded by enquiry method.

In the case of minor circuit survey numbers which are extensive and cannot be enumerated as one unit, the enumeration may be done cultivator-wise and in such cases one form should be used for one cultivator. Care should be taken to see that the entire area is accounted in this case. In those regions where only village map is available the unit of enumeration may be taken as the subdivision as shown in the F.M. Register.

Separate books should be used for wet and dry plots. The entries in the diary should be in the same order as in the basic tax register for wet land/dry lands separately. The various items in the forms are discussed below.

*Item 1—Survey number.*—The survey (or the subdivision) number(s) of the unit as identified by the Investigator should be entered here. It may be a survey subdivision number as in the litho map or as in the basic tax register. In the case of M.C. numbers the major survey number and the serial number of the cultivator should be entered here. In the case of amalgamated plots all the survey numbers comprising the unit of observation should be entered. The entries relating to the amalgamated plot may be made in the Form for the lowest survey No. In the Forms for other survey Nos. constituting the amalgamation a remark, will be given to the effect that details are given against the lowest Sy. No. relating to survey subdivision numbers in the successive pages.

*Item 2—Area (Cents).*—The area of the unit entered against item 1 should be noted corrected to the nearest cent. The area as per the basic tax register should be entered here. At the time of identification if it is found that there is a change in the area due to sea erosion or adverse possession, the actual change in the area should also be noted in brackets with a (+) or (-) sign. For example, the survey sub No. 364/4 owned and in the possession by 'A' has an area of 185 cents as per the basic tax register. At the time of identification it is found that the actual area of the plot is only 160 cents and the remaining area of 25 cents is amalgamated with the plot bearing survey sub No. 364/5. The survey sub No. 364/5 is owned and in the possession of 'B' and its area according to basic tax

register is 210 cents. The entry relating to survey sub No. 364/4 against item 2 will be 185 (-25,) 185 cents being the area as per basic tax register and (-25 cents) being the area not actually included in the plot at present. Similarly in the entry relating to Survey Sub No. 364/5 against item 2 will be 210 (+25), 210 cents being the area as per the basic tax register and (+25 cents) the area in excess of the recorded area.

*Item 3—Date of visit.*—The date and month in which enumeration is done during each visit should be noted.

### BLOCK A—AREA UNDER SEASONAL CROPS

This block is for recording the area under seasonal crops cultivated in the plot during each season. During each visit, the Investigator will record the details of crops harvested, or will be harvested during that season under the corresponding columns. The name of the crop and the area under crop split into irrigated and unirrigated should be entered in the respective columns. In the case of paddy, the variety of seed, whether high yielding variety or local, should also be noted by the letter paddy (Hy) for high yielding and paddy (L) for local. High yielding varieties of paddy cultivated in the state are given below:

#### List of high yielding varieties of paddy in Kerala

- |                            |              |
|----------------------------|--------------|
| 1. I.R. 8                  | 9. Triveni   |
| 2. I.R. 5                  | 10. Bharathi |
| 3. I.R. 20                 | 11. Sabari   |
| 4. Jaya                    | 12. Jyothi   |
| 5. Pankaj                  | 13. Mashori  |
| 6. Annapoorna (Culture 28) | 14. Vijaya   |
| 7. Aswathi                 | 15. H-4      |
| 8. Rohini                  |              |

Paddy raised and harvested in Punja lands in Kuttanad region and Kole lands in Trichur regions due to early sowing will be entered under 'Winter season' in Form I, if the crop is harvested during the period from November 1979 to February 1981. In order to identify these areas separately, the letter 'S' also may be entered along with

the name of crop in Block 'A' of Form I under winter season. These areas may be shown separately in Form IIIA also under winter season in column 23.

During the first visit, it may happen that some of the standing crops in the field will be harvested during the autumn season (July—October) itself while some others will be harvested only in winter season (November—February). The area under those crops harvested or will be harvested during July—October will be entered under autumn while those crops which will be harvested during November—February will be entered under 'Winter' and those which will be harvested subsequently but during the agricultural year under summer. In the case of standing crops which will be harvested only after the agricultural year the area may be given under summer season along with the letter 'C' to indicate that the harvest will take place only in the subsequent agricultural year.

During the subsequent visits the Investigator need enumerate the details of those seasonal and annual crops which were not covered in the previous visit(s).

Since the interval between two visits in a plot is about three to four months it is likely that some of the short duration crops like pulses are missed by the investigator at the time of his visit. Therefore, it is suggested, that during each visit the details may be collected by observation as well as by enquiry wherever possible. Also seasonal green manure crops may also be enumerated under the respective seasons. In fact it is necessary to record details by enquiry method in the case of harvested crops.

During the first visit the investigator may come across the following situations in the case of seasonal crops:—

1. There was crops in the field which was harvested during the same season prior to his visit, and there is no crop at present. This may happen rarely in the case of autumn paddy, ragi first crop, sweet potato first crop, pulses first crop and tapioca.
2. There is standing crop which will be harvested during the season (All the crops mentioned under item 1.)
3. There is standing crop which will be harvested only during the next season or the season subsequent to the next season (ginger, turmeric, cotton and tapioca).

4. There is no seasonal crop at the time of visit and no crop was harvested during the season.

The area under the first and second categories will be entered under the same season in which he visits the plot with the name of the crop.

The area under the third category will be entered under the corresponding season when it is harvested, with the name of the crop.

The area under the fourth category need not be accounted for in the case of dry lands during the first visit. But in the case of wet lands the area under the fourth category will be entered under the season of visit against any of the following classifications:—

1. Not under cultivation (Non agricultural uses)
2. Fallow for the season
3. Other crops. (In this case, area need not be entered, but an 'X' mark may be given to indicate that there is perennial or annual crops).

The wet land plots in the selected villages are being visited three times during the year, to record the details of crops grown and harvested during each season. If there is no crop in the plot or its portion, such areas are to be entered against the appropriate classification above in Block A of Form I during the respective season. It may sometimes happen that in a plot, the same patch (or different patches with approximately equal area) is left uncultivated during the different seasons. In order to identify the portions left as fallow for the season during each season, it is instructed to draw a rough sketch of the plot on the top of Form I itself and mark the portion left as fallow during each season at the time of each visit.

In the case of tapioca, it is possible that the crops during a particular year will be harvested only during the next year and as such along with the name of crop, the letters, A, B or C may also be used to identify the period of sowing also. These letters indicate the following:—

- A. Sown during the previous year and harvested during this year.
- B. Sown and harvested during the same year.
- C. Sown during this year and harvested during next year.

During the subsequent visits, care should be taken: (1) to record the seasonal crops which were raised and harvested during the previous season, if the same has been missed; and (2) to avoid duplication of the entries regarding crops which will be harvested during the next season entered in the previous visit.

During the second time the Investigator will be visiting the plots along with the details entered in the field diary, during the first visit. If the crops which will be harvested during the second season have already been noted in the diary, the corresponding entries are to be ticked (✓) to indicate that these details were noted during the previous visit. He will then record the details of other crops, if any cultivated in the plot after his first visit. The same procedure is to be followed during the third visit.

In the case of tapioca, since the harvest is spread over all the 12 months of the year, only the area under the plants which were or will be harvested during each season need be entered under the respective seasons.

Recording Crops on Bunds.—According to the present practice area of bunds is included under cropped area. The number of trees grown on bunds will be recorded, but the entire area will be assigned to the crop raised in the plot. This procedure will be followed in future also. Even if seasonal crops are raised on the bunds this procedure will be followed.

### BLOCK B-ANNUAL CROPS

Sugar-cane, banana, plantain, pineapple and betal leaves are treated as annual crops since the period extended to two or more seasons. For these five crops the area (number in the case of plantain) under the standing crops at the time of the first visit and area already harvested during the year will have to be entered under this block. This is to avoid duplication of entries in successive visits since these crops will be harvested only once in a year, from the same plot.

Columns under sugar-cane, banana and plantain are divided into two each with letter A for the first and letter C for the second.  
For sugar cane and banana, under A, area harvested or will be harvested during the current year will be recorded and the area that will be harvested during the next year will be noted under C.

In the case of plantain the number of plants harvested during the year will be entered under A and the number of pits of young plants be entered under C. The young plants in the pits of harvested plantains also should be counted as one under C. For banana, sugar-cane and betal leaves the area irrigated and unirrigated may be given separately in the respective columns.

Note.—For pineapple and banana the area under the plants corrected to the nearest cent should be noted. If there are only a few plants, the area under which is less than half a cent then put 'zero' under the corresponding columns indicating that there are a few plants the area under which is negligible.

For banana and pineapple only the area to be given in the forms. In cases where there are only a few plants the area and which is less than half a cent then it has been instructed to put 'zero' (0) under the corresponding columns. Care should be taken to see that these plants for which the area has been entered as zero are not omitted. The following procedure should be adopted for this. The number of plants in such plots should be pooled together till the area becomes at least one cent and entered against the last plot in the group. The average stand per cent may be taken as 50 for pineapple, 8 for banana and 100 for sugar-cane.

The following example will make this procedure clear:—

Example:—Suppose the number of pineapples in five plots are as follows:—

<i>Plot No.</i>	<i>No. of Pineapples</i>	<i>Entry to be made (cent)</i>
1	16	0
2	30	1
3	14	0
4	20	1
5	70	1



The entry against plot No. 4 is the area corresponding to the total number of plants in plot numbers 1, 3 and 4.

### BLOCK C—PERENNIAL CROPS

Normally this block need be filled in only during the last visit to the plot.

Block C is for recording the number/area of perennial trees grown in the plot. Only those crops which are given in appendix II need be enumerated and the classification of the trees/standards to bearing and young is to be entered in the case of coconut, arecanut, cashew and pepper. In the case of coconut and arecanut, columns are provided to record details of irrigation. The names of all important crops have been printed in Block C. Whenever a perennial crop other than those listed in Form I is cultivated over substantial areas it may be separately enumerated in a column left blank in Block 'C'. In the case of the following crops, viz., Tea, Coffee, Rubber, Cardamom, Lemongrass, Green Manure Crops, Fodder Grass and other trees codes (57, 58 and 59) only the area may be entered. The average stand per cent given below may be adopted for recording area in the case of stray plants. Rubber—2, Tea—30, Coffee—6, Cardamom—7. In the case of Block A, B and C where the area or number of trees is to be given, the gross area concept is to be followed. So it may not be necessary that the total area recorded is equal to the geographical area.

The total number of cocoa plants grown in the plot may be recorded against the items in Block C. The distribution of the plants according to their age groups, viz, less than (2) years, 2 to 4 years, 4 to 6 years and above 6 years should also be given at the bottom of the page with proper headings. The Statistical Inspector will prepare the age-wise distribution of cocoa plants in each of the selected villages and submit the same to the head office immediately after the enumeration of perennial crops is over.

In Block A, B, C wherever columns are not provided to record separately area irrigated under a crop the area irrigated may be given and it may be circled to indicate the fact.

## BLOCK D—IRRIGATION

Three columns are provided under this Block to give: (1) The net area under irrigation in the plot; (2) the source of irrigation; and (3) the number of units in the case of tanks and wells. The net area of the plot irrigated will be entered under the column area irrigated and the source of irrigation will be entered in the next column in codes. The different source of irrigation are:

1. Government Canals
2. Private Canals
3. Government Tanks
4. Private Tanks
5. Government Wells
6. Private Wells
7. Other minor and lift irrigation schemes
8. Pumps from rivers, lakes, thodu and springs
9. By country wheels from rivers, lakes, thodu and springs.
10. By other means from river, lakes, thodu and springs

In case where the source of irrigation is tanks or wells (i.e. codes 3, 4, 5 and 6) the number of wells or tanks situated in the plot and used for irrigation purpose should also be noted in the column provided with the corresponding code in brackets. This information is for estimating the number of tanks and wells used for irrigation purposes. Care may be taken to see that early or late irrigation is not missed in enumeration.

## BLOCK E—LAND UTILISATION

This block is for recording the classification of area and will be filled in only during the last visit. It should be noted that the sum of the entries in the 9 columns should be equal to the total area of the survey number as found on observation entered against item 2 of the form. The concepts and definition to be used are given in appendix I.

3. Form II:—Land Utilisation and Irrigation:—This will be supplied in registers of 100 sheets each and should be completed and kept in the Statistical Offices. The totals of such column in respect of a village should be sent to the headquarters after completion of field work.

The details regarding each village will be entered in separate registers:—If there are more than one Investigator unit in a village the details of each unit will be written separately in the same register. The entries of survey numbers in column 2 should be in the same order as followed in the basic tax register for each Investigator unit separately for wet and dry land plot; the entries for wet lands, preceding dry land. As these registers are to be kept permanently, entries should be clear and legible.

The columns in the register have been explained earlier. The details required will be available from Blocks D and E of Form I. One line is to be used for entering the details of one unit as entered in Form I. The entries are to be totalled for each page (columns 3 to 24). The total of column 3 for each investigator unit will be the total area allotted to the investigator. This will be true in the case of village totals also. Further the sum of columns 4 to 12 should be equal to the total area in column 3 for an investigator unit or a village as the case may be since forest area included in the revenue records will be excluded from the purview of the survey. Forest area included in the revenue record not enumerated may also be entered in the register and shown as forest not enumerated. If however any forest area included in the revenue records have been enumerated those may also be entered in the register separately with necessary remarks.

In order to facilitate checking the number of rows in Form II may be the same as in III A and III B. If the number of horizontal lines are less in Form II additional lines may be drawn and vice versa.

The entry in respect of column 3 of each plots (or the unit of enumeration) should be the area of the plot (or unit) given against item two of Form I.

4. Form III A :—Seasonal crop: The details required in this form are to be copied from Block A of Form I. The details are to be entered for wet/dry plots separately immediately after the visits to the plots during each season. Thus there will be two sets of Form III A one set for plots classified as 'wet' in the basic tax register (the word 'dry' in the form should be scored off) and the other for plots classified as 'dry and others' growing seasonal crop (The word 'wet' in the form should be scored off).

One line is to be used for each unit of observation as entered in form I; in the same order as they appear in the basic tax register in respect of each investigator unit. Separate sets of forms should be used for each investigator unit and the sets relating to all the investigator units in the selected villages should be tied together and kept as one bundle. In Form III A (Wet) all plots classified as wet in the Basic Tax register should be listed and against those plots growing annual and/or perennial crops, the remark 'See Form III B (W)' may be given. All seasonal crops grown in dry lands will be entered in III-A (Dry). Thus in Form III A all wet land plots will come under III-A (Wet) and those dry land plots growing at least one seasonal crop will come under III-A (Dry).

The various columns in the schedule are discussed below :

The Form contains 40 columns numbered 1 to 40. Columns 1, 2 and 3 relate to the serial number, survey number and area as per records as entered in Form I.

Columns 4 to 15:—The secolumns relate to the area under crops harvested during the autumn season. Information on crops harvested or will be harvested during each season is available in Block A of Form I. The details of autumn season will have to be copied from this Block and entered in the respective columns. The order in which the names of crops are given after 'pulses' may as far as possible be the same in all the pages relating to an investigator unit. In the case of paddy details are to be given separately for high yielding variety and local variety as well as for irrigated and unirrigated area. The headings of columns 10 to 15 are left blank. The names of seasonal crops cultivated in each village during

the season together with its code number should be entered in these column. Three columns should be used in case of wet land plots to record the details of area during the season, under the following classifications:—

1. Not under cultivation (Non-Agricultural use)
2. Fallow for the season, and
3. Other crops. (indicated by 'X' mark)

Columns 16 to 27:—These columns relate to the crops grown and harvested during winter season as entered in Block A of Form I. The instructions for filling up these columns are the same as for columns 4 to 15 given above except in the change of season from autumn to winter. These columns can be filled in only after completing the second visit.

Columns 28 to 40:—The details of crops harvested or will be harvested during summer season will be copied in these columns immediately after the third visit, in the case of wet lands and the second visit in the case of dry lands.

Page total:— The total of each column (from 3 to 40) are to be entered at the bottom of each page in the line provided as soon as the entries in each column are completed. All these totals could be verified by the S.I. and attested accordingly. The extracts of these page totals are to be forwarded to the Regional office as per time schedule.

5. Form III B—Area under annual and perennial crops:— This form is intended to copy the details of annual and perennial crops grown in all the plots in the village. As in the case of Form III A, the details are to be copied from Form I field diary of the investigator. The general instructions in respect of Form III A will be followed in the case of Form III B also. In this case also the details are to be entered separately for wet and dry land plots (dry land includes 'purambokku' and 'tharisu').

In Form III B (Dry), all plots classified as dry in Basic Tax Register should be listed even if there are no perennial or annual crops. Against those plots growing seasonal crops, the remarks 'See Form III A (Dry)' may be given. Perennial and annual crops grown in wet lands may be entered in Form III B (Wet). Thus in Form III B all dry land plots will come under III B (Dry) and those wet land plot growing perennial and/or annual crops will come under III B (Wet).

The columns in this form are discussed below:

Columns 1 to 3 :—The serial number, survey number, and the area of the unit as per records given in Form I are to be entered in these columns.

Columns 4 to 30:—The number/area of perennial trees/crops is to be entered under these columns. In the case of coconut, arecanut, cashew and pepper the number of trees/standards is to be given separately for bearing and young. In the former two cases, details of irrigation are also to be entered. The headings of 9 columns are left blank to enter the details of the other perennial crops grown in the village. Only those perennial crops given in the list of crops covered by the survey (See Appendix II) are to be considered. In the case of crops for which area figures are required according to instructions for Form I, they may be so entered here also.

Columns 31 to 40:—These columns are for recording the details of annual crops.

Page total:—As in the case of Form III A, the page totals of each column are to be entered at the bottom of each page and to be verified by S.I.

6. Form IV—Crop Abstract Report:—This form is meant for forwarding the report of the crops harvested during each season. The details are to be copied from the page totals of Form III A. This form may be prepared by the Statistical Inspector in duplicate. The abstract should be prepared from Form III A, wet and dry separately and should be sent to R.T.C. as per time schedule.

Column 1—Serial number is to be entered.

Column 2—Here enter the page numbers III A.

Column 3—The page total of column 3 in Form III A may be entered here.

Columns 4 to 7:—These four columns relate to the area under paddy during the season. The corresponding entries in the page totals of Form III A are to be copied.

Column 8 is for entering the details of tapioca harvested during the season.

Columns 9 to 13 are for entering the details of other seasonal crops harvested during each season. The name of the crop and its code number should be entered in the column headings left blank and the relevant details should be entered under the respective columns.

Columns 14 to 16:—These three columns are provided for entering the details of 'land not under cultivation, (Non-ag: use) fallow for the season and other crops' in wet lands.

B. Field Estimation.—(a) During the year 1980-81 crop cutting experiments will be conducted on the following crops:

1. Paddy [autumn, winter, summer (H:Y.V.) and summer (L) separately]
2. Tapioca
3. Coconut
4. Arecanut
5. Cashew
6. Pepper
7. Cocoa
8. Pappaya
9. Lemongrass
10. Cardamom

The number of crop cutting experiments to be conducted on each crop in each taluk is given in the Appendix IV. The Regional Deputy Director will fix up for each crop the number of experiments to be conducted in each of the investigator units in consultation with the District Statistical Officer and Statistical Inspector.

Selection of plots.—The required number of plots will be selected for each crop in the following manner. The selection should be made by the Investigator under the guidance of Statistical Inspector.

The selection of plots for paddy crop cutting should be completed one month before the commencement of harvest. Coconut and arecanut plots should be selected during July. Plots for the other crops should be selected before October 15th.

The selection of plots will be made from the frame of survey subdivisions prepared as below: (As in basic tax register).

<i>Name of crop</i>	<i>Frame to be used</i>
1. Paddy (autumn, winter and summer)	List of wet land plots growing paddy during the season.
2. Tapioca and pulses	List of all wet and dry land plots
3. Coconut, arecanut, cashew, pepper, cocoa, pappaya, lemongrass, and cardamom.	List of all dry land plots.

The required number of suitable plots for a particular crop will be selected at random from the frame for that crop prepared as above. Suitable plot is defined as one which grow the crop and which is available for harvest during the season/year. It should also be able to accommodate the required experimental cut/trees standards.

The size of the experimental plot will be  $5 \times 5$  m square plot for paddy and lemongrass. For tapioca it will be a  $2 \times 2$  m square plot. For coconut, arecanut, cashew, pepper and cocoa 5 bearing trees have to be selected from a plot. For pappaya, the number of trees to be selected will be 2.

If the selected plot does not satisfy the condition, a fresh plot will be selected at random in the case of paddy. In the case of other crops, the next plot in the frame will be visited to ascertain the suitability of the plot for experiment. If that plot also is not suitable the process will be continued till a suitable plot is obtained for crop cutting. The random number columns for selection of plots/trees are given below:

<i>Crop</i>	<i>Random column No.</i>
Paddy—Autumn	1
Paddy—Winter	2
Paddy—Summer	3
Tapioca	4
Coconut	5
Arecanut	6
Cashew	7



<i>Corp</i>	<i>Random Column No.</i>
Pepper	8
Pappaya	9
Lemongrass	10
Cocoa	11
Cardamom	12

The table of 4 digit random numbers is supplied as Appendix V. The Investigator will have to refer to the table for selection of plots/trees etc. for crop cutting survey. When using random number the numbers should be read out column-wise vertically downwards. When one column is exhausted, the first number in the next column will be taken up. If whole of the table is exhausted, the first No. in the first column will be considered. If a single digit random number is required the first digit from the left of the four digit random number will be taken up. Similarly for two digit and three digit random numbers, the required digit will be read out from the left hand side.

The experimental cut/trees are selected from the plot selected for crop cutting and harvest conducted in the manner described below:

### (B) 1. Paddy

(i) Identification of plots.—The first step in the field work is the identification of the selected plot with the help of the survey map and the address of the owner taken from the basic tax register or other records and by local enquiry. Note the boundaries of the plot after correct identification. Meet the cultivator and ascertain the date of harvest. Collect the pre-harvest details.

The selection of plots for summer paddy crop cutting experiments may be done from the frame of wet land plots growing paddy. The required number of plots may be selected. If the number of plots under HYV fall short of 50% of the number of cuts allotted to the taluks the deficiency may be made good by selecting fresh plots from the list and successively rejecting the plots growing other varieties.

(ii) Selection of Kandam.—If the selected plot has more than one kandam, all the kandas in the selected plot growing the crop have to be serially numbered beginning from the south-west corner and proceeding anti-clockwise. One kandam may be selected by simple random sampling method.

(iii) Location and marking of an experimental cut—(a) Fixing the starting point of the kandam. In each selected kandam a square cut of size 5 metres is to be located at random. After fixing the starting point as described below, measure the length and breadth in uniform steps.

If the kandam is approximately rectangular, the south-west corner of the kandam is the starting point.

If the kandam is not rectangular enclose it in the least rectangle whose longer side is parallel to the longer side of the kandam meeting at the south-west corner. The south-west corner of the rectangle is the starting point.

(b) Locating the 5 metres square. Stand facing the kandam. Beginning from the starting point mentioned above, measure in uniform steps, the side x towards the right (east) and y towards the left (north) perpendicular to the first side.

Deduct seven from both x and y and obtain the remainders.

Take random numbers 'a' and 'b' less than or equal to the remainders. If the random number obtained is zero, it need not be rejected.

Measure 'a' steps from the starting point towards east and then 'b' steps in the vertical direction inside the field. This point will fix the south-west corner of the experimental cut.

The experimental cut is marked with the help of the crop cutting frame. Construct the crop cutting frame with pegs and strings supplied. Tie the string to the pegs such that distance between two adjacent pegs is 5 metres. At the second peg measure 150 cm. along the string tied to the first peg and mark the point. Similarly from the second peg measure 200 cm. along the string tied to the third peg and mark the point. Tie a string 250 cm. connecting the above two points. Similar arrangements may be made in the opposite corner also. This completes the frame.

Fix a peg at the south-west corner of the experimental cut determined. Take the peg already tied to it and fix it so that the string is parallel to the side towards east. Fix the third peg already tied to the 2nd peg at a distance of 5 metres at right angles to the first string observing the right angles with the help of 500 cm. string connecting the two strings at points 150 cm. in one direction and 200 cm. in other direction. Observe whether the angle at the fourth peg is a right angle. Check by measuring the diagonal of the experimental cut which should be 7.07 metres.

See that all the 4 pegs are vertical and firmly fixed to the ground and that the string is stretched tightly on all the four sides. Lower the string to the level of the ground separating the bunches of the plants which lie on the boundary of the cut thus marked. Include a bunch within the cut if half or more than half of its base falls inside the cut and reject the bunch if otherwise.

The cut should be rejected if the cut does not fall wholly in the selected kadam. In such cases take a fresh pair of random numbers to locate another plot. The condition of the crop, viz. whether poor or good is not a criterion for rejecting the cut. If the yield is nil it should be recorded as zero.

(iv) Harvesting, threshing, etc.—Harvest the plants within the boundary of the 5 metre square located. The produce should be threshed, winnowed and cleaned properly. Particular care should be taken to see that there is no loss at any stage viz. harvesting, winnowing, cleaning and weighing. Weigh the cleaned grain and record the weight in kg. correct to two decimal places. All details required in the prescribed final schedules should be collected.

Three samples of 250 gms. are to be collected for driage experiments in a taluk. The Statistical Inspector may fix the villages and plots from which these samples are to be collected and inform the Investigator sufficiently early. The first sample should be collected at the beginning of the season, second towards the middle and third towards the end of the harvesting season. The samples collected should be sent to the Statistical Inspector within 24 hours. The Statistical Inspector should weigh each sample immediately on receipt and again on alternate days after drying till two consecutive weights are the same. The details relating to driage experiments should be sent to the Head Office.

(v) Submission of returns.—The following returns relating to crop cutting on paddy are to be submitted.

(a) Pre-harvest schedules.—Immediately after the final selection of the plot, the Investigators will visit the plot, collect the required preliminary details in the pre-harvest schedule. The pre harvest schedules are to be sent to the RTC. as per the following time schedule.

Autumn	..	15th August 1980
Winter	..	15th December 1980
Summer	..	15 th March 1981

(b) Progress report.—The monthly progress report relating to the survey should be sent by the 5th of every succeeding month to the District Statistical Officer by the Statistical Inspector. The consolidated progress report should be sent by D.S.O. to the Regional Deputy Director by 10th of every succeeding month and R.D.D. to Director by 15th of every succeeding month.

(c) Inspection report.—The inspection reports of Statistical/Additional Inspectors/District Statistical Officers/Additional District Statistical Officers should be sent to the Directorate. The due dates for each season are follows:

Autumn	..	15th November 1980
Winter	..	15th March 1981
Summer	..	15th July 1981

The rate of harvest stage inspection is fixed as follows:

Statistical Inspectors/	..	At least one in an Investigator unit subject to a minimum of six
Additional Statistical Inspectors		
District Level Officers	..	At least one in each taluk

(d) 1st report on yield of experimental plots. The yield of the experimental cut may be reported to the headquarters on the date of harvest by the investigator in a small form (post card size) provided. In the case of experiments supervised the supervising officer may also sign the return.

(e) Results of driage experiments.—The data on driage experiments may be sent by the Statistical Inspectors to the headquarters 15 days after the last experiment is over in his taluk.

(f) Special report of District Statistical Officer.—A report may be forwarded by District Statistical Officer to the headquarters within one week after the harvest during each season, describing the salient features of the crop specially mentioning percentage of the crop damage, if any due to drought, pest and other diseases, flood, etc., in each taluk.

(g) Final schedules.—The crop cutting schedules may be forwarded to the Regional Deputy Director's Office immediately after the survey in a village is over.

## 2. Tapioca

(i) Selection of plot.—The required number of plots are selected from the list of wet and dry plots during September-October. The investigator should visit the plot to ascertain whether it is a suitable plot for the experiment. If the plot is not suitable for crop cutting, the next plot in the list should be visited to find out its suitability for the experiment. The process should be continued until a suitable plot is fixed up. In those taluks where tapioca is grown but is not found in the TRS villages the allotted number of cuts may be taken from an equal number of non TRS villages selected randomly.

If the selected plot contains more than one patch under tapioca, then one patch should be selected by simple random sampling method for conducting the experiment. The patches should be numbered starting from south-west corner and proceeding anti-clock-wise.

(ii) Location of cut in the selected plot/patch.—Starting from south-west corner of the patch /plot measure the side  $x$  towards the right (east) and  $y$  perpendicular to  $x$  towards the left (north) of the patch in steps. Take two random numbers one less than  $x$  and the other less than  $y$ . Let the number be 'c' and 'd'. Measure  $c$  steps towards east and  $d$  steps from there towards north. This point determines the south-west corner of the experimental cut. Measure  $2 \times 2$  m square with the point as the south-west corner. If the  $2 \times 2$  m square thus located does not fall in the selected plot/patch, fresh random numbers may be chosen and the experimental cut located.

(iii) Harvesting and recording of weight—All tapioca plants in the experimental cut should be harvested, cleaned of the soil sticking to the tubers and weighed. Weight should be recorded correct to the nearest half kg. The details required in the prescribed form should be collected.

(iv) Submission of returns.—The following returns should be submitted:

(a) Progress report.—The Statistical Inspector should send monthly progress report to the District Statistical Officer by 5th of every succeeding month. The consolidated progress report should be sent by the D.S.O. to the Regional Deputy Director by 10th of every succeeding month and R.D.D. to the Director by 15th of every succeeding month.

(b) Inspection report.—Inspection report in the prescribed form should be sent by Statistical Inspector/District Statistical Officer to the headquarters within two weeks of last inspection. The Statistical Inspector/Additional Statistical Inspector should inspect at least 5 or 50% of the experiments in a taluk. The district level officers should inspect at least 3 experiments at harvest stage.

(c) Final schedules.—The final schedules in prescribed form should be submitted to the headquarters within one week after the harvesting is over in a village.

### 3. **Coconut, arecanut, cashew, pepper, pappaya and cocoa**

From the list of dry land plots, the required number of plots for each crop is selected by simple random sampling. The selected plots are visited to ascertain the suitability of the plot for crop cutting experiment i.e. to verify whether there are the required number of bearing trees of the crop in the plot (5 for coconut, arecanut, cashew, pepper and cocoa and two for pappaya). If the plot does not contain the required number of bearing trees, the next plot in the list will be visited. The visit will be continued until a suitable plot is obtained from the list.

Selection of trees.—For selecting trees/standards for crop cutting, the bearing trees/standards in the plot should be serially numbered starting from south-west corner and proceeding in anti-clock-wise direction. Five trees/standards are selected by simple random sampling method for coconut, arecanut, cashew and pepper and cocoa. For pappaya two trees are selected. The selected trees/standards should be given permanent identification mark (preferably the order of selection). The following example will make the method of selection of trees clear.

Example.—Let the total number of bearing trees/standards in the plot selected be 28. From the random column take five two digit random numbers less than or equal to 28. Let them be 27, 02, 09, 15 and 19 in order. Then the trees/standards selected for crop cutting are those with Sl. Nos. 27, 2, 9, 15 and 19. Tree number 27 may be given identification mark 1, tree number 2, mark 2 and so on.

Collection of details.—The details of harvests during the agricultural year as well as other details in the prescribed form should be collected. The Investigator should be present at the time of each harvest of coconut, arecanut and pepper. In the case of cashew, cocoa and pappaya periodical visits should be made to the plot and the details of all harvests from the selected trees should be collected. It should be ensured that no harvest during the agricultural year is missed.

Submission of returns.—(a) Progress report.—A monthly progress report in the prescribed form should be sent by Statistical Inspector to District Statistical Officer by 5th of every month. A consolidated progress report may be sent by the D.S.O. to the Regional Deputy Director by 10th of every month and R.D.D. to Director by 15th of every month.

(b) Monthly abstract of harvests.—Monthly abstract of harvests conducted during the month may be sent for coconut and arecanut to headquarters by the Statistical Inspector not later than the 10th of every succeeding month.

(c) Final Schedules.—Final schedules in the prescribed forms may be sent to headquarters within one week of the harvest in a village is over for a particular crop.

#### 4. Lemongrass

The required number of plots will be selected from list of dry land plots. As in the case of other crops, suitable plot is selected proceeding by the order of plots in the list used for selection. The experimental plot will be of size 5 x 5 m.

Selection of experimental plot.—If the selected plot has more than one patch a patch may be selected at random. From the south-west corner of the selected plot/patch measure the side  $x$  towards east and the side  $y$  perpendicular to  $x$  towards north. Choose two random numbers less than or equal to  $x$  and  $y$  respectively. With the help of the random numbers the south-west corner of the experimental plot is located.

Collection of details.—The crop in the 2 x 2 metre square is harvested, and weight recorded correct to half a kg. The other details in the form also may be collected.

Submission of returns.—(a) Progress report - A monthly progress report by SI in the prescribed form should be sent to District Statistical Officer by 5th of every month. A consolidated progress report may be sent by the D.S.O. to the Regional Deputy Director by 10th of every month and R.D.D. to the Director by 15th of every month.

Final schedules.—Final schedules in the prescribed form may be sent to headquarters within one week of the harvesting is over in a village.

#### 5. Cardamom

The required number of suitable plots will be selected at random from the list of dry land plots growing cardamom during the year. The suitable plot is defined as the one which grows the crop and available for harvest during the year. It should also be able to accommodate the experimental cut. The selection of the plot should be completed one month before the commencement of the harvest.

The size of the experimental plot will be 5 x 5 square plot. If the selected plot does not satisfy the condition a fresh plot will be selected at random. If the selected plot or estate have more than one



block, one block should be selected at random. From the selected block the experimental plot is selected at random as is done in the case of paddy. The details of harvests and other information may be collected in the prescribed pro forma. The Investigator should be present at the time of harvest. If the Investigator could not be present at the time of harvest due to unavoidable circumstances, the details of harvest should be collected by enquiry. The Statistical Inspector will have to conduct at least two harvest stage inspections. He should also arrange to take from every fifth experiment, 250 grams of raw produce for processing and to get the required information.

### (C) Forms for field work

The following 12 forms will be used for yield estimation surveys on the various crops mentioned earlier.

- |     |                                                   |                |
|-----|---------------------------------------------------|----------------|
| 1.  | Form V—List of plots selected for crop cutting    |                |
| 2.  | Form VI—First report on crop yield of paddy       |                |
| 3.  | Form VI A—Final schedule on crop cutting of paddy |                |
| 4.  | Form VI B                                         | do. Tapioca    |
| 5.  | Form VII A                                        | do. Coconut    |
| 6.  | Form VII B                                        | do. Arecanut   |
| 7.  | Form VII C                                        | do. Cashew     |
| 8.  | Form VII D                                        | do. Pepper     |
| 9.  | Form VII E                                        | do. Pappaya    |
| 10. | Form VII F                                        | do. Lemongrass |
| 11. | Form VII G                                        | do. Cocoa      |
| 12. | Form VII H                                        | do. Cardamom   |

In addition to these, pre-harvest schedule for paddy, progress reports for various crops, inspection reports for paddy and tapioca and harvest reports of coconut and arecanut are prescribed. They are self explanatory and hence not described here. The twelve forms listed above are discussed below:

1. Form V—List of plots selected for crop cutting experiments—This gives the details of plots selected for crop cutting for various crops in an investigator unit. This should be prepared and kept in the Statistical Office for inspection. All the items in the schedule are self explanatory.

2. Form VI—First report on crop yield of paddy:—This is a simple form to report the yield of the experimental plot for paddy on the same day on which the harvest takes place. The items are self explanatory. In the case of the experiment being supervised the supervising officer will put his signature in the space provided. The card should be posted on the same day of harvest.

3. Form VI A—Final schedule on paddy:—The details of selection, results of experiment and details regarding irrigation, fertiliser use and manure are recorded in the form. There is space to report details of 3 experiments in a form. Each Investigator may give the results in a separate form adding additional forms in case there are more than 3 experiments in a unit. The code numbers to be used are given at the foot of the schedule itself. In the case of experiments lost also all the details except data regarding yield and location of experimental cut must be given. The Investigators should invariably have the forms with them when going to the field and record the details in them.

For summer season, separate schedules should be used for H.Y.V. series and local variety series. In the case of H.Y.V. series, 'H.Y.V.' may be noted at the top of the form.

4. Form VI B—Crop cutting on tapioca:—One form should be used for an investigator unit. Against item 8, the number of plants in a 5 metre square may be counted and recorded. If a 5 metre square is not available in the selected plot/patch, the length and breadth of the patch/plot may be measured and the number of plants and area in square metres may be recorded.

5. Form VII A—Crop cutting on coconut:—The details of harvest conducted on all the five selected trees in a plot are to be entered in one form. The number of harvest will vary from plot to plot and the details of each harvest are to be noted separately in the form. During each harvest, the details of nuts plucked may be entered separately as tender, ripe, over ripe, barren and number of nuts fallen down after previous harvest. At the time of harvest, the number of nuts in three bunches to be harvested subsequently may be noted in the space provided in the form. This is to check the number of nuts at the time of harvest. The details of all the harvests conducted during the agricultural year 1980.81 should be collected and recorded. Extract of the details of harvest should be sent to the Directorate every month before the 10th.

6. Form VII B—Crop cutting on arecanut.—The details of the number and weight of nuts plucked as tender and ripe may be entered separately in this form. The details of all harvests in the year may be entered in one form. Extract of the details of harvests should be sent to the Directorate by 10th of every month.

7. Form VII C—Crop cutting on cashew.—The harvest details of trees in a plot are recorded in one form. During the peak period of harvest, cashewnuts are plucked from the trees at an interval of two or three days. Care should be taken to see that no harvest of the selected trees is missed and that complete details are collected and entered in this form.

8. Form VII D—Crop cutting on pepper.—The produce from pepper standard will be harvested once or twice. The weight of berries with spikes and without spikes are recorded separately for each standard.

9. Form VII E—Crop cutting on pappaya.—The harvest details of trees in a plot are recorded in one form. Care should be taken to see that no harvest of the selected tree is missed and that complete details of harvests are collected and entered in this form. The average weight of a pappaya for ripe and tender from each tree may be recorded at the bottom of the schedule.

10. Form VII F—Crop cutting on lemongrass.—The details of each harvest in a plot are to be recorded in one form.

11. Form VII G—Crop cutting on cocoa.—The details of each harvest from the selected trees in the plot are to be recorded in one form.

12. Form VII H—Crop cutting on cardamom.—The details of harvests from each selected plot are to be recorded in one form. Care should be taken to see that no harvest is missed and that complete details of harvest are collected and entered in the form.

**(D) Allotment of Investigators**

The number of villages selected for area enumeration is 198. The number of Investigators now available for field work (area enumeration and crop estimation surveys) is 9029. Among them 57 will be retained at the Taluk Headquarters at the rate of 1 for each taluk to attend the urgent extra work relating to crop cutting experiments and other items of work in cases where regular hands are not able to cope up with the work. This is to ensure that no experiment is missed or lost.

The number of Investigator units suggested for each village is given in the list of villages--Appendix III. The Statistical Inspector will allot the work among the Investigators.

The number of crop cutting experiments to be conducted for each crop in a Taluk is given in Appendix IV. The Regional Deputy Director (TRS) will allot the number of experiments allotted for a taluk among the Investigator units in consultation with the District Statistical Officer and Statistical Inspectors. Due consideration may be given to the workload of the Investigator in a unit and the area under crop in the unit. While allocating crop cutting experiments on paddy and tapioca, it may be ensured that a minimum of two experiments are conducted in a village.

# District-wise details of Villages, Investigators and Crop Cutting Experiments

Serial number	District	No. of villages		No. of Investigators		No. of plots to be selected for crop cutting experiments													
		Total	Selected	3	4	5	6	7	Paddy		Tapioca	Coconut	Aracanut	Cashewnut	Pepper	Cocoa	Pappaya	Lemongrass	Cardamom
									A	S									
1	2	94	14	71	114	114	96	126	50	25	21	23	5	20	..	..	..	..	..
2	Trivandrum	99	14	82	152	116	144	144	60	31	25	30	20	30	..	..	..	..	..
3	Quilon	99	14	60	192	144	102	102	45	21	15	20	25	25	..	..	..	..	..
4	Alleppey	74	10	71	110	92	108	108	40	25	5	35	40	20	..	..	..	..	..
5	Kottayam	42	6	41	66	66	56	56	20	10	5	65	15	5	..	..	..	..	..
6	Idukki	100	14	73	200	200	120	100	40	52	18	27	40	25	..	..	..	..	..
7	Ernakulam	234	37	71	140	140	126	106	45	50	21	18	20	15	..	..	..	..	..
8	Trichur	152	23	111	150	150	126	90	28	16	41	10	10	20	..	..	..	..	..
9	Palghat	122	20	94	114	114	102	128	55	58	75	20	20	20	..	..	..	..	..
10	Malappuram	123	18	89	96	100	100	110	75	40	19	71	10	15	..	..	..	..	..
11	Kozhikode	188	29	139	162	162	170	180	60	72	145	75	15	25	..	..	..	..	..
	Cannanore	1327	199	902	1496	1496	1192	1250	518	400	390	394	220	220	..	..	..	..	..
	State																		

## Returns relating to TRS

Sl. No.	Details of return	From whom due	To whom due	Due date
(1)	(2)	(3)	(4)	(5)
1.	Work allocation statement	S.I.	D.S.O.	15.7.1980
2.	Consolidated work allocation statement	D.S.O.	Regional D.D./ Director	31.7.1980
3.	Monthly progress report of area enumeration	S.I.	D.S.O.	5th of every month
4.	Consolidated monthly progress report of area enumeration	D.S.O.	Regional D.D. Director	7th of every month 10th of every month
5.	Consolidated monthly expenditure on TRS	D.S.O./R.D.D	Director	10th of every month
6.	Quarterly progress report	D.S.O./R.D.D	"	10th of July, October, January, April
7.	Form IV Abstract wet lands (1) Autumn (2) Winter (3) Summer	S.I. " " "	Regional D.D. " " "	30.9.1980 5.1.1981 15.5.1981 5.1.1981
8.	Form IV Abstract dry lands	"	"	"
9.	Form IV Consolidated statement for Taluks (wet)	Regional D.D. " "	Director " "	A. 31.10.1980 W. 15.2.1981 S. 15.6.1981 5.2.1981
10.	Form IV Consolidated statements for Taluk, (dry)	"	"	"

11.	Form II Abstract	S.I.	Director	July 1981
12.	Form III A	S.I.	Regional D.D.	July 1981
13.	Form III B	"	do.	do.
14.	Form A	"	Director	June 1981
15.	Consolidated statements of III A and III B	Regional D.D.	"	31.10.1981
16.	Progress report on crop cutting experiments	S.I.	D.S.O	5th of every succeeding month
	(a) Paddy	} Do.	do.	do.
	(b) Tapioca			
	(c) Cashew, pepper, coconut, arocanut			
	(d) Cocoa, pappaya, lemon- grass, cardamom			
17.	Consolidated progress reports on 16	D.S.O.	R.D.D.	10th of every succe- eding month 15th of every succe- eding month
18.	Monthly abstract of harvests			
	(1) Coconut	} S.I.	Director	10th of every succe- eding month
	(2) Arecanut			

<i>Sl. No.</i>	<i>Detail of return</i>	<i>From whom due</i>	<i>To whom due</i>	<i>Due date</i>
(1)	(2)	(3)	(4)	(5)
19.	Pre-harvest schedules of paddy	S.I.	Regional D.D.	Autumn 15.8.1980 Winter 15.12.1980 Summer 15.3.1981
20.	Consolidated statement of pre-harvest for taluks	Regional D.D.	Director	Autumn 31.8.1980 Winter 31.12.1980 Summer 31.3.1981
21.	First report on yield of paddy	Investigator	"	On the day of harvest
22.	Inspection report of C.C. on paddy*	S.I./D.S.O.	"	Autumn 15.11.1980 Winter 15.3.1981 Summer 15.7.1981
23.	Diriage results of paddy	S.I.	"	Within 15 days after each season
24.	Special report of D.S.O.	D.S.O.	"	Autumn 15.11.1980 Winter 15.3.1981 Summer 15.7.1981
25.	Inspection report of C.C. on tapioca	S.I./D.S.O.	"	Within 15 days after the survey is over
26.	Final schedules of crop cutting on paddy	S.I.	Regional D.D.	Immediately after harvest in a taluk is over
27.	Compilation sheets of C.C. on paddy	Regional D.D.	Director	Autumn 30.11.1980 Winter 31.3.1981 Summer 31.7.1981



28.	Final schedules of C.C. on crops other than paddy	S.I.	Within one week after harvest is over in the taluk
29.	Schedules of sample check (3 copies)	S.I.	Within 3 days of inspection
30.	Schedules of sample check (Original/Duplicate)	Regional D.D. Director/ N.S.S.O.	Within two days of receipt of schedules.

\* The S.I. may intimate the number of experiments inspected to the D.S.O.

## APPENDIX I

**Concepts and Definitions**

1. Agricultural year 1980-81 is defined as the period of 12 months from 1st July 1980 to 30th June 1981.

2. Season.—The agricultural year 1980-81 is divided into three non-overlapping seasons of four months duration each. They are:

(a) Autumn .. July 1980 to October 1980

(b) Winter .. November 1980 to February 1981

(c) Summer .. March 1981 to June 1981

3. Seasonal crops.—Crops which are harvested during the period of four months in the season are defined as the seasonal crops of the respective season. Thus paddy, pulses, tapioca etc., which are harvested during different periods of the year will have to be classified as autumn paddy, autumn pulses etc., according to the period of harvest. The seasonal crops for which the major period of harvest in that village falls within July to October will be autumn crops, November to February winter crops and March to June summer crops.

4. Annual crops.—Banana, sugarcane, plantain, pineapple and betel leaves are to be considered as annual crops for the purpose of this survey.

5. Perennial crops.—Crops which are standing for more than an year will be treated as perennial crops. Most of the perennial crops are tree crops. In the case of sugarcane cultivated in Devicolam taluk even though the period exceeds 12 months it will be treated as annual crops and not perennial.

6. Bearing trees.—In the case of crops which are to be recorded as bearing and young, bearing is defined as those which have flowered at least once.

7. Plot.—A plot is defined as a patch or piece of land which has a separate survey subdivision number, in the basic tax register.

8. Unit of observation.—A unit of observation is defined as the area identified separately for area enumeration. It shall be a plot or a group of plots (in case of a survey subdivision number as in lithomap) or the land in possession of one cultivator.

9. Investigator unit.—The area allotted to one investigator will be treated as an investigator unit. It shall be a village, or a portion of village.

10. Irrigation.—Irrigation is here defined as the process of letting water inside the plot, for the benefit of the crops grown which involves some artificial, either mechanical or manual effort. Thus rainfed areas will not be considered as irrigated.

11. Sources of irrigation.—Codes 1 and 2 Canal irrigation.—When a canal is given as source, it should be an artificially built one for conveying water from a river, lake or reservoir. If the canal is owned by 'Government', it is Government canal and if owned by private individuals, it is private canal.

Codes 3 and 4.—If the source of water is from tanks, it is termed as tank irrigation. Irrigation from tanks may be through small canals (field bothies) or pumpsets or other means. Water obtained from tanks through small canals (field bothies) will be considered as tank irrigation and not as canal irrigation. But if the source of water in the tank itself is from 'Canal', then the source will be canal irrigation and not tank irrigation. Tank will be classified under Government tank if it is owned by Government or public bodies and private tank if owned by private individuals.

Codes 5 and 6—Wells.—If the water obtained for irrigation is from wells either through pumpsets or lifting by other means, it is termed as well irrigation. It is again classified into Government or Private according to ownership.

Code 7 other minor and lift irrigation schemes.—This will include Government minor irrigation schemes such as lift irrigation, diversion channels, deepening of thodu, construction of crossbars etc.

Codes 8 to 10.—Self explanatory.

12. Irrigated area (Net).—Irrigated area is defined as the area which receives irrigation at least once during the agricultural year.
13. Area under irrigated crops.—The area under a crop will be treated as irrigated if irrigation facilities are available and used for cultivating the crop.
14. Buildings and courtyard.—The area exclusively used for building and courtyard will come under this category.
15. Other non-agricultural uses.—This stands for all lands occupied by roads and railways or under water, rivers and canals and other lands put to uses other than agricultural.
16. Barren and uncultivable land.—This covers all barren and uncultivable lands like mountains, deserts etc. Land which cannot be brought under cultivation unless at a high cost shall be classed as uncultivable, whether such land is in isolated blocks or within cultivated holdings.
17. Miscellaneous tree crops and groves not included in the net area sown.—Area occupied by casurina trees, thatching grass, bamboo bushes and other groves for fuel, etc., will come under this category. It may be noted that the above trees and groves do not come under the category of crops and hence they are not included under net area sown.
18. Permanent pastures and other grazing lands.—These cover all grazing lands, whether they are permanent pastures and meadows or not.
19. Culturable waste.—These include lands available for cultivation whether not taken up for cultivation or abandoned after a few years for one reason or the other. Such lands may be either fallow or covered with shrubs and jungles which are not put to any use. They may be assessed or unassessed and may lie in isolated

blocks or within cultivated holdings. Land once cultivated but remaining uncultivated for five years or more in succession shall also be included in this category.

20. Current fallow.—This class comprises cropped areas which are kept fallow during the current year. If any seedling area is not cropped again in the same year it may be treated as current fallow.

21. Other fallows.—All lands which were taken up for cultivation but are temporarily out of cultivation for a period of not less than one year and not more than five years are included under this category. The reasons for keeping such lands as fallow may be one of the following:

- (1) Poverty of cultivators;
- (2) Inadequate supply of water;
- (3) Malarial climate;
- (4) Silting of canals and rivers; and
- (5) Unremunerative nature of farming.

22. Net area sown.—In calculating the net area sown, area sown more than once will be counted only once. Area cultivated during any part of the agricultural year should come under net area sown. Hence, the net area sown will not exceed the geographical area.

## APPENDIX II

## Crops to be covered by TRS in Kerala

Sl.No. (1)	Crop (2)	Code (3)	Period (4)
A. Seasonal Crops:			
1.	Autumn paddy	01	July—October
2.	Winter paddy	02	November—February
3.	Summer paddy	03	March—June
4.	Autumn pulses	04	July—October
5.	Winter pulses	05	November—February
6.	Summer pulses	06	March—June
7.	Horsegram	07	November—February
8.	Autumn tapioca	08	July—October
9.	Winter tapioca	09	November—February
10.	Summer tapioca	10	March—June
11.	Autumn sweet potato	11	July—October
12.	Winter sweet potato	12	November—February
13.	Summer sweet potato	13	March—June
14.	Tubers*	19	July—December
15.	Other vegetables	20	July—December
16.	Autumn sesamum	25	July—October
17.	Winter sesamum	14	November—February
18.	Summer sesamum	15	March—June
19.	Jowar	16	July—October
20.	Ragi	17	July—October
21.	Other cereals and millets	18	July—October
22.	Groundnut	21	July—October
23.	Ginger	22	November—February

\*Includes arrow root and koorka, potato

Sl. No. (1)	Crop (2)	Code (3)	Period (4)
24.	Turmeric	23	November—February
25.	Cotton	24	November—February
26.	Tobacco	26	July—October
27.	Chillies	27	July—October
28.	Onion	28	..
29.	Tur	29	..
30.	Other seasonal crops *	30	..
<b>B. Annual Crops:</b>			
31.	Betal leaves	31	July—October
32.	Banana	32	July—October
33.	Plantain	33	November—February
34.	Sugarcane	34	November—February
35.	Pineapple	35	November—February
<b>C. Perennial Crops:</b>			
36.	Coconut	36	
37.	Arecanut	37	
38.	Palmyra	38	
39.	Cashew	39	
40.	Mango	40	
41.	Jack	41	
42.	Tamarind	42	
43.	Pepper	43	
44.	Rubber	44	
45.	Tea	45	
46.	Coffee	46	
47.	Cardamom	47	
48.	Cloves	48	

\*Includes kolinchi, chittaratha, katcholam, etc.

Sl. No. (1)	Crop (2)	Code (3)	Period (4)
49.	Nutmeg	49	
50.	Cinnamon	50	
51.	Cocoa	51	
52.	Pappaya	52	
53.	Drum stick	53	
54.	Lemongrass	54	
55.	Fodder grass	55	
56.	Green manure crops	56	
57.	Other oil seed trees	57	
58.	Other fruit trees	58	
59.	Other trees included under net area sown	59	

- Note.—1. Area under kudapana and vazhana will be enumerated under 'other trees'.
2. Area under neem, oil palm and castor will be enumerated under 'other oil seed trees'.
3. Area under kudampuli will be enumerated under 'other fruit trees'.



APPENDIX III

LIST OF VILLAGES SELECTED FOR 1980-81

DISTRICT : TRIVANDRUM

Taluk	Sl.No. of Villages	Name of Villages	No. of plots						Area in acres			No. of Investigator Unit
			Wet	Dry	Others	Total	Wet	Dry	Others	Total		
	1	2	3	4	5	6	7	8	9	10	11	12
Neyyattinkara	1	Ottasekaramangalam B	1645	4118	1043	6806	195.55	1129.53	26311.44	27636.52	9	
	2	Maranalloor	3513	4650	1460	9623	937.50	5052.77	220.07	6210.34	4	
	3	Kanumkulam	415	6762	229	7406	19.40	3076.54	64.95	3160.89	2	
Trivandrum			5573	15530	2732	23835	1152.45	9258.84	26596.46	37007.75	15	
	1	Uliyamkathura	3300	5043	428	8771	663.72	2889.51	119.38	3672.61	2	
	2	Iroopara	2492	3461	126	6079	447.17	2369.04	234.10	3050.31	2	
	3	Madathuvilakam	2907	4369	395	7671	624.16	1401.17	354.98	2380.31	1	
4	Kadinamkulam	1026	3713	267	5006	220.88	1657.39	896.17	2774.44	2		
			9725	16586	1216	27527	1955.93	8317.11	1604.63	11877.67	7	

1	2	3	4	5	6	7	8	9	10	11	12
Nedumangad	1	Uzhamala- kkal A	1453	5110	1372	7935	662.31	4710.60	1721.64	7094.55	5
	2	do. B	1494	4162	1050	6706	488.92	3614.07	528.99	4631.98	3
	3	Perum- kulam	1891	5891	1407	9189	488.63	4263.49	509.46	5256.58	4
			4838	15163	3829	23830	1634.86	12588.16	2760.09	16983.11	12
Chirayinkil	1	Navaikulam	4906	8817	764	14487	1067.89	5501.84	427.23	6996.96	5
	2	Vellalloor	2017	3244	212	5473	481.00	2202.66	115.00	2798.66	2
	3	Kilimanoor	3045	6339	256	9640	753.53	3765.82	186.59	4705.94	3
	4	Mudakkal	1457	1935	131	3523	343.51	2215.70	323.52	2884.73	2
			11425	20835	1763	33123	2645.93	13686.02	1054.34	17386.29	12
Trivandrum District			31561	67614	9140	108315	7389.17	43850.13	32015.52	83254.82	46

## DISTRICT: QUILON

Quilon	1	Kottarakara	8516	12585	910	22011	941.77	4842.37	469.02	6253.16	4
	2	Mayyanad	5423	5227	1463	12113	716.20	2943.98	493.81	4158.99	2
			13939	17812	2373	34124	1657.97	7791.35	962.83	10412.15	6
Kottarakara	1	Veliyam	3362	6320	868	10550	883.94	5929.53	661.08	7474.55	4
	2	Elaniadu	2516	5010	965	8491	735.00	5684.00	898.47	7417.47	4
			5878	11330	1833	19041	1618.94	11613.53	1659.55	14892.02	8
Kunnathur	1	Kodumon	3410	3203	934	7547	793.40	2361.57	649.30	3804.27	2
	2	Sooranad South	8328	5313	553	14194	1027.31	2960.30	255.09	4242.70	3
			11738	8516	1487	21741	1820.71	5321.87	904.39	8046.97	5
Pathanapuram	1	Piravan- thoor	4476	1929	826	7231	1161.76	4526.71	25478.47	31166.94	10
	2	Thalavoor	4896	5399	1773	12068	973.14	4222.59	390.11	5585.84	3
	3	Pidavoor	1259	2627	393	4279	359.67	2168.15	1123.82	3651.64	2
			10631	9955	2992	23578	2494.57	10917.45	26992.40	40404.42	15

1	2	3	4	5	6	7	8	9	10	11	12
Pathanamthitta	1	Konni	937	6059	418	7414	404.05	7855.67	1140.25	9399.97	5
	2	Pachavan- gadi	226	4158	248	4632	147.40	3826.35	2564.85	6538.60	3
	3	Vadasseri- kara	193	9076	523	9792	120.64	11776.34	6183.50	18080.48	10
			1356	19293	1189	21838	672.09	23458.36	9888.60	34019.05	18
Karunagappally	1	Karunaga- pally	18263	12970	1924	33147	2362.14	2006.96	894.70	5227.80	3
	2		15947	9960	778	26685	1826.65	2176.95	160.78	4164.28	2
			34200	22930	2702	59832	4152.69	4183.91	1055.48	9392.08	5
Quilon District	14		77742	89836	12576	150154	12416.97	63286.47	41463.25	117166.69	57
DISTRICT: ALLEPPEY											
Karthikappally	1	Puthappally	8973	6934	1092	16999	1290.04	1488.47	1478.20	4256.71	3
	2	Chingold	5090	3400	351	8841	1080.16	656.28	52.61	1789.05	1
	3	Kumara- puram	9422	8338	1088	19348	1662.10	1695.96	197.75	3555.81	2
			23485	19172	2531	45188	4032.30	3840.71	1728.56	9601.57	6



1	2	3	4	5	6	7	8	9	10	11	12
Cherthalai	1	Thanneer- mukkom South	1515	4577	284	6376	624.43	2190.68	3797.22	6612.33	4
	2	Thykkathus- seri	3352	6219	421	9992	1220.95	1491.19	704.13	3416.27	2
	3	Mattathil- bhagam	4985	7438	754	13177	1003.62	1925.99	3859.67	6789.28	5
Alleppey District			9852	18234	1459	295.45	2849.00	5607.86	8361.02	16817.88	11
			71676	71955	9784	153415	30199.81	21199.70	13131.89	64529.40	37
DISTRICT : KOTTAYAM											
Changanasseri	1	Madappally	2043	7015	394	9452	638.32	5166.20	130.96	5935.48	4
	2	Vellavoor	104	3138	149	3391	82.22	5540.00	279.05	5901.27	4
			2147	10153	543	12843	720.54	10706.20	410.01	11836.75	8
Kanjirappally		N I L	..	..	..	..	..	..	..	..	..
Kottayam	1	Ayarkunnam	1578	5805	237	7620	828.05	4732.87	135.73	5696.65	3
	2	Nattakom	1412	4428	401	6241	2752.65	1980.28	784.27	5517.20	3
	3	Pampady	1722	9721	252	11695	595.77	9508.08	196.05	10279.90	7
			4712	19954	890	25556	4156.47	16221.23	1116.05	21493.75	13

Vaikom	1	Vadayar	3166	4295	386	7847	2357.68	2207.64	541.94	5107.26	3
	2	Kallara	2222	2086	154	4462	2087.18	3601.80	1101.27	6790.25	4
			5388	6381	540	12309	4444.86	5809.44	1643.21	11897.51	2
Meenachil	1	Kurichi thanam	1145	5446	180	6771	473.61	5080.92	103.17	5657.70	4
	2	Poonjar Vadakkera	..	6005	745	6750	..	10412.25	2665.59	13077.84	9
	3	Poonjar Nadubhagam	39	7275	679	7993	34.93	12138.25	970.32	13143.50	9
			1184	18726	1604	21514	508.54	27631.42	3739.08	31879.04	22
Kottayam District			13431	55214	3577	72222	9830.41	60368.29	6908.35	77107.05	50

## DISTRICT: IDUKKI

Peerumedu	1	Peerumedu	1	1045	797	1843	0.28	17593.56	18179.55	35773.39	7
Devicolan	1	Kottakom-pur	152	113	137	402	146.10	1387.53	7369.49	8903.12	5
Udumbanchola	1	Chakkupallam	200	946	631	1777	123.52	6210.59	7320.83	13654.94	5
	2	Pampadumpara	382	514	263	1159	260.36	2928.78	22097.70	25286.84	4
			582	1460	894	2936	383.88	9139.37	29418.53	38941.78	9

	1	2	3	4	5	6	7	8	9	10	11	12
Thodupuzha		1	Karikode	1255	3666	344	5265	677.62	4808.37	1104.36	6590.35	4
		2	Thodupuzha	1227	5748	466	7441	640.81	4339.47	419.35	5399.63	5
				2482	9414	810	12706	1318.43	9147.84	1523.71	11989.98	
Idukki District				3064	10874	1704	15642	1702.31	18287.2	30942.24	50931.76	30

## DISTRICT : ERNAKULAM

Kothamangalam	1	Pothanikad	1185	4677	378	6240	1189.73	4677.77	146.29	6013.79	4
Muvattupuzha	1	Muvattupuzha	2096	4199	335	6630	1033.70	3772.12	343.30	5149.12	3
	2	Velloorkunnam	3566	3325	337	7228	1410.25	2058.60	350.42	3819.27	2
			5662	7524	672	13858	2443.95	5830.72	693.72	8968.39	5
Cochin	1	Palluruthi	1423	2336	1126	4885	1186.57	1070.25	1729.15	4085.97	2
	2	Kumbalangi	1054	2126	1202	4382	1996.11	1090.45	2136.16	5222.72	3
			2477	4462	2328	9267	3182.68	2160.70	3965.31	9308.69	5



Kanayannur	1	Thrikakara	5692	4235	712	10639	2961.52	3702.41	850.77	7514.70	5
		South									
	2	Nadamel	1234	2540	1153	4927	1102.26	1422.92	439.21	2964.39	2
	3	Maradu	1753	2312	651	4536	1229.32	1238.47	582.88	3050.67	2
	4	Mulamkad	1063	929	306	2298	1001.52	581.25	3304.79	4887.56	3
			9742	9836	2822	22400	6294.62	6945.05	5177.65	18417.32	12
Kunnathunad	1	Vadavicoode	326	460	318	1104	150.60	431.50	36.51	618.61	
	2	Kizhakkam- balam	3882	8999	909	13790	3366.17	4038.63	397.05	7801.85	5
			4208	9459	1227	14894	3516.77	4470.13	433.56	8420.46	5
Alwaye	1	Alwaye	8210	7577	1375	17162	4856.90	7197.80	1595.84	13650.54	8
	2	Manjapra	4165	3615	1617	9397	3486.46	5128.04	9476.06	18090.56	8
			12375	11192	2992	26559	8343.36	12325.84	11071.90	31741.10	16
Parur	1	Parur	2493	5146	457	8036	1491.15	2716.62	636.88	4844.65	3
Ernakulam District			38082	52296	10876	101254	26462.26	39126.83	22155.31	87714.40	50

## DISTRICT: TRICHUR.

Cranganur	1	Edavilangu	795	1735	268	2798	681.48	1069.33	126.39	1877.20	1
	2	Eryad	2038	2069	697	4804	738.00	1464.15	148.09	2350.24	1
	3	Chendra- ppinni	381	1560	34	2475	633.13	1152.56	29.32	1815.01	1

	1	2	3	4	5	6	7	8	9	10	11	12
Mukundapuram	1	Varamthira- ppilly	555	1186	668	2409	885.65	1467.39	942.67	3295.71	2	
	2	Thrukkur	445	576	230	1251	609.21	1439.00	98.67	2146.88	1	
	3	Thoravu	579	703	401	1683	640.21	739.59	154.41	1584.21	1	
	4	Anandha- puram	685	534	436	1655	614.18	738.51	154.09	1506.78	1	
	5	Manavallas- sery	1276	1573	1157	4006	1455.02	1347.50	230.48	3033.00	2	
	6	Kadippas- sery	860	1105	491	2456	587.50	1225.00	95.00	1907.50	3	
	7	Kizhakke- chalakudy	613	1344	715	2670	566.19	1030.34	305.12	1901.65		
	8	Kalluthek- kummuri	1234	1189	747	3170	1372.95	1391.28	323.98	3088.21	2	
			6247	8210	4843	19300	6730.91	9428.61	2304.42	18463.94	12	
Trichur	1	Puzhakkal	604	780	381	1765	514.62	597.41	86.21	1198.24	1	
	2	Vallachira	316	683	357	1356	362.35	1047.29	84.60	1494.24	1	
	3	Karamuck	1673	1499	599	3765	714.47	860.55	211.99	1787.01	1	
	4	Kariman- galam	629	1284	556	2469	1031.29	871.67	211.33	2114.29	1	
	5	Anjoor	495	905	345	1745	481.32	1096.73	96.12	1674.17	1	
	6	Kozhukkully*489		544	307	12888	481.78	493.15	84.88	1059.81	1	

7	Ollukara	514	1765	705	2984	588.18	2438.64	385.94	3412.76	2
8	Puthur	745	918	420	2083	982.25	1343.71	1488.71	3814.67	2
9	Vadakkum- muri	935	1110	561	2606	568.45	832.63	103.67	1504.75	1
10	Choolisseri	238	347	205	790	263.42	519.65	26.97	810.04	1
11	Velappaya	294	547	284	1125	254.72	809.55	37.15	1101.42	1
		6880	10382	4714	21976	6245.85	10910.98	2817.57	19971.40	12
1	Wadakkanchery	787	1238	1384	3409	650.13	1664.52	1387.15	3701.80	3
2	chery	118	239	102	459	142.17	584.30	20.58	697.05	2
3	Kirakur	219	191	148	558	212.10	177.68	70.93	460.71	—
4	Karumathara	810	807	408	2025	612.68	721.43	77.68	141.79	—
5	Arihat	452	662	345	1459	369.50	920.53	175.53	1465.56	1
6	Vellarakad	776	1188	564	2528	787.65	1194.97	117.11	2099.73	1
7	Kadavallur	599	1218	558	2375	482.73	1837.37	122.66	2442.76	1
8	Perumpilavur	1690	1322	692	3704	1052.69	892.21	75.69	2020.59	1
9	Kadanis- seri	450	1214	412	2076	967.72	2415.04	1752.59	5135.35	3
10	Elanad	1284	1765	606	3655	801.13	1453.26	1513.54	3767.93	2
11	Kondatty	529	794	752	2075	425.51	1199.76	471.27	2096.54	1
12	Desaman- galam	810	1181	372	2663	566.54	1624.11	1160.28	3350.93	2
13	Painkulam	945	1380	816	3151	1100.00	943.82	154.91	2198.73	1
	Kallakampal	9469	13509	7159	30137	8170.55	15579.00	7099.92	30849.47	1
1	Pavarathy	1363	1839	128	3330	448.63	1379.26	504.68	2332.57	1
2	Thalikulam	1570	1980	126	3676	825.74	1728.87	135.92	2690.53	2
		2933	3819	254	7006	1274.37	3108.13	640.60	5023.10	3
		9243	41284	17969	88496	24471.29	42722.76	13166.31	80350.36	48

1. 2 3 4 5 6 7 8 9 10 11 12

DISTRICT: PALGHAT

<b>Chithur</b>	1	Vadakara.	943	1915	196	3054	2083.94	2912.95	182.79	5179.68	4
		pathy									
	2	Kunnankat.	521	946	225	1692	375.75	2478.77	354.16	3208.68	2
		tupathy									
	3	Pallassena	5537	5116	1671	12324	3962.83	2901.85	376.49	7211.17	4
	4	Kuttippal.	607	588	214	1409	886.36	1135.50	188.80	2210.66	1
		lam									
	5	Koduva.	1481	1654	644	3779	1115.36	1135.82	240.10	2491.28	2
		yoor II									
			9089	10219	2950	22258	8424.24	10564.89	1342.34	20331.47	13
<b>Alathur</b>	1	Melarcude	5120	5689	814	11623	3006.25	2346.73	984.59	6337.57	4
	2	Vadakkan.	1568	1228	1698	4494	1479.83	3523.97	199.48	5203.28	3
		chery I									
	3	Mathur II	2098	2222	460	4780	1641.04	1096.44	149.92	2887.40	2
	4	Peringottu.	2570	3316	586	6472	1538.11	2806.60	486.94	4831.69	3
		kurissi II									
			11356	12455	3558	27369	7665.23	9773.74	1820.97	19259.94	12
<b>Palghat</b>	1	Kannadi I	3190	1770	654	5614	2341.22	831.87	307.24	3480.33	2
	2	Edappally II	2697	3396	794	6887	3604.48	1891.28	479.22	5974.98	4
	3	Kongode II	1869	3337	446	5652	1466.37	3589.98	186.64	5242.99	3
	4	Mannur	2216	3857	359	6432	1794.59	3095.58	178.77	5068.94	3
	5	Parali II	1685	2526	308	4519	1261.19	1829.73	433.14	3524.06	2
			11657	14886	2561	29104	10467.85	11238.44	1585.01	23291.30	14

Ottappalam	1	Annallara	2070	2440	461	4971	1492.94	2994.30	689.04	5176.28	4
	2	Ongallur	1117	1861	139	3137	914.06	2798.11	75.11	3787.98	3
	3	Thirumitta-	1378	1551	62	2991	1084.72	2604.52	49.55	3738.79	2
		kode II	1156	2104	217	3477	955.65	2450.71	519.50	3925.86	2
	4	Pattambi	2640	2539	199	5378	1902.01	2544.21	642.11	5088.33	3
	5	Paruthur	1975	4430	443	6848	1379.57	3672.69	118.53	5170.79	3
6	Ambala-										
		para	10336	14945	1521	26802	7728.95	17065.14	2093.94	26888.03	17
Mannarghat	1	Attappadi I	471	3110	532	4113	502.32	56000.00	15000.00	71502.32	9
	2	" II	157	1907	407	2471	300.00	35000.00	700.00	36000.00	8
	3	" III	63	2113	774	2950	822.50	32300.00	12890.00	46012.50	8
			691	7130	1713	9534	1624.82	123300.00	28590.00	153514.82	25
Palghat District			43129	59635	12303	115067	35911.09	171942.21	35432.26	243285.56	81
DISTRICT : MALAPPURAM											
Perinthalmanna	1	Kuruva	3135	2900	312	6347	1757.99	5784.58	128.43	7671.00	5
	2	Puzhakkat-	2599	2926	186	5711	1571.64	3896.70	138.28	5606.62	3
		tiri	1323	3639	395	5357	1323.62	5046.00	388.87	6758.49	5
	3	Melattur	791	2149	150	3090	1248.86	4880.16	176.67	6305.69	4
4	Edapatta	7848	11614	1043	20505	5902.11	19607.44	832.25	26341.80	17	
Ponnani	1	Alengode	1534	2505	82	4121	1602.38	3419.30	49.06	5070.73	3
	2	Nannamukku	2001	2869	228	5098	2082.59	2308.15	193.72	4584.46	3
			3535	5374	310	9219	3684.97	5727.45	242.77	9655.19	6



## DISTRICT: KOZHIKODE

Kozhikode	1	Nelliode	426	1489	145	2060	454.85	1973.92	29.44	2458.21	2
	2	Thalaku- lathur	954	2043	29	3026	1051.30	2125.65	329.64	3506.59	2
	3	Nanmanda	473	1986	88	2547	689.03	4945.90	67.97	5702.90	4
	4	Koduvally	239	1986	88	2286	287.87	3295.49	199.39	3782.75	3
	5	Kizhakkoth	395	2554	154	3103	304.50	4532.76	80.75	4918.01	3
	6	Kodiyathur	349	1210	135	1694	564.27	6646.98	172.82	7384.07	4
			2836	11210	670	14716	3351.82	23520.70	880.01	27752.53	18
Quilandy	1	Sivapuram	375	1560	89	2024	543.29	4266.96	26.58	4836.83	3
	2	Thikotti	801	1871	82	2754	1505.78	1827.07	162.40	3495.25	2
	3	Mappayur	339	1111	144	1594	335.20	2205.50	92.77	2613.47	4
	4	Pannikottur							*	8296	4
	5	Peruvanna							*	14569	7
	6	Kanthalad							*	7810	4
			1982	6806	507	9295	2918.98	13231.95	349.65	42620.55	22
Badagara	1	Villiapally	598	1530	242	2370	765.55	2728.14	347.30	3840.99	2
	2	Thiruvalloor	391	1206	176	1773	620.91	2066.93	136.03	2823.87	2
	3	Edacherry	1031	2262	189	3482	1249.08	2563.96	178.70	3991.74	3
			2020	4998	607	7625	2635.54	7359.03	662.03	10656.60	7

\* Unsurveyed.

	1	2	3	4	5	6	7	8	9	10	11	12
South Wynad	1	Achuranuva	177	696	71	944	746.66	16708.13	129.10	17578.85	5	
	2	Kidanganad	177	249	27	453	945.57	1979.86	40357.16	43282.59	10	
	3	Kuppadi- thara	356	769	32	1157	1300.70	2389.23	161.94	3851.87	2	
			710	1714	130	2554	2992.93	21072.22	40648.20	64713.35	17	
†Kozhikode District			7081	22464	1722	†31267	11364.56	60251.43	42451.94	144742.98	64†	
<b>DISTRICT: CANNANORE</b>												
North Wynad	1	Thavinhal	642	1134	74	1850	1954.65	17453.58	250.97	19663.20	5	
	2	Kuppathode	642	1411	123	2176	2997.64	8940.67	521.63	12459.94	4	
			1284	2545	197	4026	4956.29	26394.25	772.60	32123.14	9	
Tellicherry	1	Tellicherry	230	2451	368	3049	257.53	869.72	245.20	1372.45	1	
	2	Panni- yannur	1139	1812	52	3003	685.49	1794.02	33.66	2483.17	1	
	3	Pathriyad	362	1567	49	1978	450.17	2672.60	90.06	3212.83	2	
	4	Kodiyeri	652	3071	176	3899	787.95	1840.30	118.81	2747.06	2	
	5	Eruvatty	430	1495	42	1967	461.35	2101.88	8.86	2572.09	1	
	6	Kappad			Unsurveyed				*	99000.00	14	
	7	Vekkalam	64	363	94	521	193.09	3791.88	57.34	4042.31	3	
			2877	10759	781	14417	2805.58	13070.40	553.93	115429.91	824	



Cannanore	1	Cherutha- zham		1706	2587	62	4355	2175.00	4044.00	32.00	6251.00	4
	2	Chirakkal		300	2466	135	2901	755.00	2016.00	561.00	3332.00	2
	3	Pappinis- seri		2344	1054	752	4150	1902.00	1045.00	814.00	3761.00	2
	4	Valiyannur		296	1063	36	1395	820.00	1414.00	191.00	2425.00	1
				4646	7170	985	12801	5652.00	8519.00	1598.00	15769.00	9
Thaliparamba	1	Eruvassi		32	614	41	687	88.35	28366.59	428.32	28883.26	6
	2	Kankal		1083	896	68	2047	833.78	3225.95	85.66	4145.39	3
	3	Panayur		209	1531	75	1815	332.00	5563.81	170.16	6065.97	4
	4	Palluvam		790	1344	92	2226	247.19	3417.78	488.74	4153.71	3
	5	Payyan- noor		6266	1852	183	8301	2807.76	1293.32	795.43	4896.51	3
				8380	6237	459	15076	4309.08	41867.45	1968.61	48144.84	19
Hosdurg	1	Pallikara		934	2340	180	3454	487.27	1861.60	322.51	2671.38	2
	2	Maloth		60	507	22	589	98.90	22245.96	750.53	23095.39	5
	3	Kodakkat		766	1468	96	2330	470.39	1909.48	1783.72	4163.59	3
	4	Trikkaripur		2450	1646	117	4213	1537.73	1528.91	1421.33	4487.87	3
				4210	5961	45	10586	2594.29	27545.85	4278.09	24418.23	13

1831

† Excluding the unsurveyed portion.

	1	2	3	4	5	6	7	8	9	10	11	12
Kasargode				1823	2861	175	4859	716.00	2940.25	493.39	4149.64	3
Kayyur			1251	1847	171	3269	993.00	4403.95	217.06	5614.01	4	
Emmakaje		3	916	3029	185	4130	828.83	7688.93	51.80	8569.06	6	
Marie		4	490	1362	88	1940	440.01	2984.24	108.67	3482.92	2	
Badoor		5	1228	1935	353	3516	1191.23	3422.80	352.22	4968.25	3	
Koipady		6	1197	3393	327	4917	975.74	4397.17	402.88	5775.79	4	
Ednad		7	816	1959	128	2903	718.77	4034.08	121.90	4874.75	3	
			8776	18635	1448	28859	6884.14	45073.52	2162.77	37434.42	25	
†Cannanore District			29118	49058	4264	†82440	26182.32	147218.37	10918.85	†283319.54	99	

\* Excluding the unsurveyed portion

APPENDIX IV (A)  
**Investigator units selected for 1980.81**  
 (REPEAT SAMPLE)

District/Taluk	Sl.No. of village	Name of village	Sl.No. of Investigator unit selected
1	2	3	4
Neyyattinkara	1	Kulathoor	3, 1
	2	Kulathummal	1
	3	Neyyattinkara	2, 5
	4	Kollayil	1
Trivandrum	1	Pallippuram	1
	2	Muttathara	2
	3	Thiruvallam	5
Nedumangad	1	Nedumangad	4
	2	Anad A	1
	3	Aryanad B	2, 5
	4	Vellanad	4
Chirayinkil	1	Keezhathingal	1
	2	Avanancherry	1
	3	Varkala	3
Trivandrum District			17
Quilon	1	Nedumpana	3
	2	Paravoor	2
	3	Quilon	3, 1
Kottarakara	1	Vettikavala	5
	2	Pooyapally	2
	3	Melila	2
Kunnathur	1	Peringanad	3
	2	Koodal	9, 3, 7
	3	Enadimangalam	1
Pathanapuram	1	Pathanapuram	2
	2	Edamulakkal	4
	3	Alayamon	4

1	2	3	4
Pathanamthitta	1	Mallapuzhassery	3
	2	Pathanamthitta	1
	3	Naraganam	2
Karunagapally	1	Perunadu	1
Quilon District			19
Karthigappally	1	Karuvatta }	5, 4
	2	Pathiyoor }	
Mavelikara	1	Thamarakulam	3, 2
	2	Bharanikavu	2
Chengannur	1	Chengannur	2
	2	Kurathisserri	1
Thiruvalla	1	Kottangal	3, 2
	2	Kalloopara	3
Kuttanad	1	Kozhimukku	1
	2	Chempakulam	3
Ambalapuzha	1	Mararikulam South	3
Sherthalai	1	Thuravoor South	1
	2	Sherthalai South	1
	3	Thannermukkom North	4
Alleppey District			16
Changanacherry	1	Vazhappally East	2
	2	Nedumkunnam	4
	3	Kangazha	4
Kanjirappally	1	Kanjirappally	1, 4
Kottayam	1	Vijayapuram	3
	2	Elikulam	3
	3	Onamthuruthu	1
Vaikom	1	Vedakkemur	1
	2	Neduvila	2

1	2	3	4
Meenachil	1	Ramapuram	3
	2	Bharananganam	1
	3	Poonjanthekkekara	1, 3, 4
	4	Uzhavoor	2
Kottayam District			<u>16</u>
Peermade	1	Periyar	2
Devicolam	1	Mannankandom	3
Udumbanchola	1	Kalkoonthian	1, 2
Thodupuzha	1	Arakulam	2, 1
	2	Parapuzha	3
Idukki District			<u>7</u>
Kothamangalam	1	Kottappady	1
Muvattupuzha	1	Palkkuzha	1
	2	Arakkuzha	1, 3
Cochin	1	Edavanakkad	1
Kanayannur	1	Thrikkakara North	1
	2	Cheramalloor	2
	3	Kanayannur	1
Kunnathunad	1	Vengoor East	7, 1
	2	Muzhayannur	7, 1
	3	Vengola	1
Alwaye	1	Malayattoor	2
	2	Chengamanad	5
Parur	1	Ezhikkara	1
Ernakulam District			<u>16</u>
Kodungalloor	1	Azhikode	1

	1	2	3	4
Mukundapuram	1	Kalluvadakkumuri		3
	2	Molur		2
	3	Muzhavadakkumuri	}	2
	4	Alur		
	5	Irinjalakuda		1
	6	Amballur		1
	1	Pallissery	}	
	2	Cherpu		
	3	Killanoo		1
	4	Chazhur	}	
	5	Tholur		
	6	Chalakkal		1
Thalappally	1	Pulakkode	}	
	2	Chelakkara		
	3	Manalithara		1
	4	Viruppaka		1
	5	Akathiyoor		1
	6	Kanippayyur		1
	7	Pazhayannur		1
Chowghat	1	Edamuttom		1
	2	Vemkotangu		3
Trichur District				18
Chittur	1	Pothundy		2
	2	Perumatty		4
	3	Thathamangalam		2
	4	Vadavannur		2
	5	Koduvayoor		2
Alathur	1	Kuthannur		1
	2	Kuthannur II		2
	3	Erumayar I		1
	4	Kizhakancherry I		4, 1

1	2	3	4
Palghat	1	Pudussery centre	3
	2	Palghat I	1
	3	Malampuzha II	1
	4	Akathetbara	1
Ottappalam	1	Sreekrishnapuram I	1
	2	Kappur	2
	3	Cherplacherry	4
	4	Chalavara	4
	5	Thirumittakode I	1
	6	Vaniyamkulam I	1
	7	Nellai	1
	8	Koppam	1
Mannarghat	1	Pottasseri I	1
	2	Mannargbat I	3, 5
Palghat District			25
Perinthalmanna	1	Thazhakkode	2
	2	Kizhathur I	2
	3	Kadoor	2
	4	Vittathoor	1
Ponnani	1	Mannacherry	1
Tirur	1	Vallikunnu	1
	2	Marakkara	2
	3	Thannur	3
	4	Valavannur	3
	5	Puduppalli	2
Ernad	1	Anakkayam	2
	2	Amarambalam	6, 1
	3	Kalikaeri	4, 6, 8
	4	Kottakkal	3
	5	Edavanna	1
	6	Kizhaparamba	1
	7	Muthuvallur	4
Malappuram District			20

1	2	3	4
Kozhikode	1	Feroke	1
	2	Kodamcheri	5, 4
	3	Kunnamangalam	4
	4	Panniyankara	1
	5	Madavoor	1
	6	Kakkodi	2
Quilandy	1	Balusseri	2
	2	Panthalayeri	2
	3	Cheruvannoor	2
	4	Unnikulam	3
Badagara	1	Palayad	1
	2	Kuttiyadi	1
	3	Valayam	2
S. Wynad	1	Kottappady	4, 8
	2	Poothady	6, 8, 5
	3	Padinjarethara	3
	4	Tiriyode	3
Kozhikode District			21
North Wynad	1	Vemom	7, 2
	2	Thondernad	6, 3, 2
Tellicherry	1	Keezhur	2
	2	Mokeri	2
	3	Peroor	} 3
	4	Puthur	
	5	Kolayad	1
	6	Kuthuparamba	3
Cannanore	1	Azhikode	1
	2	Madai	1
	3	Kadannappilly	1



1	2	3	4
Taliparamba	1	Eramom	3
	2	Kalliad	7, 3
	3	Malapattom	1
	4	Maniyoor	1
	5	Alappadamba	4
	6	Irikkur	1
Hosdurg	1	Anjur	1
	2	Periye	1
	3	Chemmeni	4, 1
	4	Kinanur	1, 7
Kasargode	1	Muliyar	4, 1
	2	Bela	1
	3	Kudla	3
	4	Kodlamogaru	1
	5	Bededka	3, 1, 4
Cannanore District			34

**APPENDIX IV**  
**Number of Experiments to be conducted during 1979-80**

Taluk/District	Paddy				Tapioca	Coconut	Areca nut	Cashewnut	Pepper	Cocoa	Pappaya	Lemon grass	Cardamom
	Autumn	Winter	Summer	At									
1	2	3	4	5	6	7	8	9	10	11	12	13	
1. Neyyattinkara	30	30	24	38	15	5	5	5	..	5	..	..	..
2. Trivandrum	24	24	24	20	15	5	5	5	..	5	..	..	..
3. Nedumangad	30	30	24	36	10	10	6	8	..	5	..	..	..
4. Chirayinkil	30	30	24	32	10	5	5	5	..	..	..	..	..
TRIVANDRUM DISTRICT	114	114	96	126	50	25	21	23	5	20	..	..	..
5. Quilon	24	24	24	24	17	5	..	5	10	6	..	..	..
6. Kottarakkara	30	30	24	34	14	5	10	8	..	6	..	..	..
7. Kunnathur	30	30	24	22	9	5	7	5	..	6	..	..	..
8. Fathanapuram	24	24	24	22	6	5	8	7	..	6	..	..	..
9. Pathanamthitta	20	20	..	32	5	6	..	5	..	6	..	..	..
10. Karunagappally	24	24	20	10	9	5	..	..	..	..	..	..	..
QUILON DISTRICT	152	152	116	144	60	31	25	30	20	30	..	..	..
11. Karthigappally	24	24	24	18	8	5	..	..	..	4	..	..	..
12. Mavelikkara	30	30	24	22	5	5	5	5	..	4	..	..	..
13. Chengannur	24	24	24	16	6	5	..	5	5	4	..	..	..
14. Thiruvalla	24	24	24	26	7	6	5	10	10	5	..	..	..
15. Kuttanad	30	30	24	..	2	..	..	..	10	4	..	..	..

APPENDIX IV—(contd.)  
 Number of experiments to be conducted during 1979-80

Taluk/District	Paddy			Tapioca	Coconut	Arecanut	Cashewnut	Pepper	Cocoa	Papaya	Lemongrass	Cardamom
	Autumn	Winter	Summer									
1	2	3	4	5	6	7	8	9	10	11	12	13
16. Ambalapuzha	30	30	24	10	11	..	..	..	..	..	..	..
17. Sherthalai	30	30	..	10	6	..	..	..	..	4	..	..
ALLEPPEY DISTRICT	192	192	144	102	45	21	15	20	25	25	..	..
18. Changanacherry	20	20	24	14	6	5	..	5	10	5	..	..
19. Kanjirappally	12	12	..	12	2	..	..	5	..	..	..	..
20. Kottayam	30	30	24	32	9	5	..	8	10	5	..	..
21. Vaikom	24	24	24	10	7	5	..	5	5	5	..	..
22. Meenachil	24	24	20	40	16	10	5	12	15	5	..	..
KOTTAYAM DISTRICT	110	110	92	108	40	25	5	35	40	20	..	..
23. Peermade	12	12	..	10	..	..	..	5	..	..	..	15
24. Devikulam	12	12	..	10	..	..	..	5	..	..	..	10
25. Udumbanchola	12	12	..	10	5	..	..	30	5	..	..	15
25. Thodupuzha	30	30	..	26	15	10	5	25	10	5	..	..
IDUKKI DISTRICT	66	66	..	56	20	10	5	65	15	5	..	40

APPENDIX IV—(contd.)  
 Number of experiments to be conducted during 1979-80

Taluk/District	Paddy			Tapioca	Coconut	Arcanut	Cashewnut	Pepper	Cocoa	Pappaya	Lemongrass	Cardamom
	Autumn	Winter	Summer									
1	2	3	4	5	6	7	8	9	10	11	12	13
27. Kothamangalam	30	30	20	18	3	20	5	5	10	5	10	..
28. Muvattupuzha	30	30	20	36	6	5	..	6	10	5	5	..
29. Cochin	20	20	..	..	6	..	..	..	..	..	..	..
30. Kanayannur	30	30	20	12	6	5	5	5	..	5	..	..
31. Kunnathunad	30	30	20	24	7	10	8	6	10	5	10	..
32. Alwaye	30	30	20	10	5	6	..	5	10	5	..	..
33. Parur	30	30	20	..	7	6	..	..	..	..	..	..
ERNAKULAM DISTRICT	200	200	120	100	40	52	18	27	40	25	25	..
34. Kodungalloor	20	20	24	..	6	..	..	..	..	..	..	..
35. Mukundapuram	30	30	30	40	15	15	5	8	10	5	..	..
36. Trichur	30	30	24	16	9	15	6	5	10	5	..	..
37. Talappally	30	30	24	40	4	15	5	5	..	5	..	..
38. Chowghat	30	30	24	10	11	5	5	..	..	..	..	..
TRICHUR DISTRICT	140	140	126	106	45	50	21	18	20	15	..	..
39. Chitour	30	30	24	10	5	..	..	..	..	5	..	5
40. Alathur	30	30	24	10	5	..	..	..	..	5	..	..

APPENDIX IV—(contd.)  
 Number of experiments to be conducted during 1979-80

Taluk/District	Paddy			Tapioca	Coconut	Arcanaut	Cashewnut	Pepper	Cocoa	Pappaya	Lemongrass	Cardamom
	Autumn	Winter	Summer									
1	2	3	4	5	6	7	8	9	10	11	12	13
41. Palghat	30	30	24	10	7	..	15	..	..	5	..	..
42. Ottappalam	30	30	30	40	6	10	15	5	10	5	..	..
43. Mannarghat	30	30	24	20	5	6	11	5	..	..	..	..
PALGHAT DISTRICT	150	150	126	90	28	16	41	10	10	20	..	5
44. Perinthalmanna	30	30	24	38	7	13	20	5	..	5	..	..
45. Ponnani	24	24	24	10	4	..	5	..	..	5	..	..
46. Tirur	30	30	24	40	24	15	20	5	10	5	..	..
47. Ernad	30	30	30	40	20	30	30	10	10	5	..	..
MALAPPURAM DISTRICT	114	114	102	128	55	58	75	20	20	20	..	..
48. Kozhikode	30	30	30	40	17	20	5	15	10	5	..	..
49. Quilandy	30	30	20	30	33	15	9	18	..	5	..	..
50. Badagara	24	24	30	20	25	5	5	8	..	5	..	..
51. South Wynad	12	12	20	20	..	..	..	30	..	..	10	10
KOZHIKODE DISTRICT	96	96	100	110	75	40	19	71	10	15	10	10

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APPENDIX IV—(contd.)  
 Number of experiments to be conducted during 1979-80

Taluk/District	Paddy			Tapioca	Coconut	Arecanut	Cashewnut	Pepper	Cocoa	Pappaya	Lemongrass	Cardamom
	Autumn	Winter	Summer									
I	2	3	4	5	6	7	8	9	10	11	12	13
52. North Wynaad	12	12	20	10			10	5	..	..	10	10
53. Tellicherry	30	30	30	40	20	14	25	15	..	5	..	..
54. Cannanore	30	30	30	10	16	6	20	5	..	5	..	..
55. Taliparamba	30	30	30	40	12	20	30	30	5	5	10	5
56. Hosdurg	30	30	30	40	18	14	30	20	10	5	10	5
57. Kasargode	30	30	30	40	4	18	30	..	..	5	..	..
CANNANORE DISTRICT	162	162	170	180	60	72	145	75	15	25	30	15
STATE	1496	1496	1192	1250	518	400	390	394	220	220	85	70

Equal No. of experiments to be selected from H. Y. V. local varieties.

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