

'Operation Calendar' and 'Reminder Card' System— A Key for Successful Demonstrations *

by

‡ S. RAMAKRISHNAN

Demonstration as a means of spreading knowledge in scientific agriculture has long been adopted by the Agriculture Department in Tamil Nadu. Method demonstration to illustrate a particular operation and Result demonstration to prove the value of any package of practices are often employed to convince the farmers for their adoption.

Selection of site preferably on the road side or near shandy places of easy accessibility, choice of ryots with notable zeal, credence and cooperation are certain features that can assure success in the endeavour of the extension worker. The demonstration has to be laid out in the holding of the most dependable and influential ryot who can command an ideal cross-section of the whole community. The process also involves erection of information board, tom-tom, ocular demonstration of the exact operations followed by discussion for the beneficial exchange of ideas, celebration of 'Field Day' and finally bringing out suitable hand-out. Despite all these, failures are not uncommon and the extension worker has to examine the pit-falls.

Improper selection of area, site, season and the demonstration ryots are the primary defects which any diligent extension worker should avoid. Conduct of demonstration itself might suffer from inadequate technical knowledge and experience of the extension worker, his failure to make timely visits to the demonstration plot, lack of written guidance to the ryots, nonavailability of the essential requirements like fertilizers, pesticides etc. in time, and the like. Again, with the rapid advancement of science and technology, the extension worker has to recognise the increasing demands of the enlightened ryot in contrast to the one of yester-generation. The progress of scientific research and potentiality in modernisation manifests themselves as challenges to the extension worker. The introduction of increasing number of high-yielding-strains in different crops has posed a variety of problems that would need expert guidance for their success. The rapid succession of such strains in many crops adds to the magnitude of the demonstration where dissemination of their technology becomes formidable. Thus, it becomes imperative to propose a device that would meet the various problems enumerated. Such a device naturally entails provision of an instrument to aid the extension worker and improve his efficiency and widen his area of service.

'Operation Calendar' is one such aid that contains a chain of cultural operations for any particular crop of a demonstration farmer. This has a

* Awarded T. Nataraj Rolling Shield and Medal for Agricultural Extension for the year 1971.

‡ Special District Agricultural Officer, Farmers' Training Centre, Coimbatore.

supplementary in the form of a 'Reminder-Card, to draw his attention well-in-time and to make him attend to the various cultivations perfectly and unfailingly. It is common knowledge that the failure or neglect of some of the important operations could result in drastic reduction in crop-yields. The timely execution of these operations will be taken care of by a reference to the operation calendar.

'Operation Calendar' and 'Reminder Card' The 'Operation Calendar' is a device intended to help the successful conduct of any result demonstration in the sense that it helps the demonstration farmer to perform all the cultural operations to the crop in a very systematic, accurate and timely manner as per the recommended package of practices. If by chance the contents of any sheet of the operation calendar are failed to be observed by the demonstration farmer he should be reminded of them in time by the Extension Worker. Here comes the necessity for the associate device, namely 'Reminder Card'. The technical details including the cultural operations to be performed to the crop at the different stages with all relevant particulars like names of inputs, the appropriate equipments and tools to be used are furnished to the demonstration farmer through the method and added to that, the details are brought to his notice well-in-time so that he will be in a position to attend to the cultivation most perfectly. For the Extension Worker it necessitates the observance of a close watch towards the different operations to be attended to the crop and the sending up of the reminder cards to the individuals in time.

Ultimate success in adopting the method lies in: (i) getting the acceptance for the adoption of the method by the Extension Worker after convincingly describing the method and its implications, (ii) selecting only such ryots who are capable of getting guided by the method, (iii) evolving a method in the administrator's office in posting the reminder cards in time to the demonstration farmers and (iv) making alterations in the dates noted in the operation calendar and reminder card as and when necessary. Leaving the demonstration entirely to be attended to by the demonstration farmer after the initial discussion and acceptance is not contemplated by this method. The Extension Worker must be present for all the major operations as his lucid descriptions of the various operations and the techniques involved in them to the gathering of other farmers on these days will alone lead to the much-needed dissemination of the correct information.

Prearrangements are essential for carrying out any minor or major cultural operations in the demonstrations. For instance, if a spraying of pesticide is to be done as a demonstration, the following will have to be attended to as prearrangements: (a) selection of pesticide or pesticides based on the age of the crop, nature of the pests prevalent or probable etc., (b) securing pesticides at appropriate quarters and transporting them to the field, (c) securing correct type of equipments like sprayer, suitable drums, stirrers, water carrying-vessels,

etc., adjusting and testing them as to their condition and various measuring and weighing equipments, (d) engaging adequate number of the right type of muzdoors and skilled labour, (e) arranging for the adequate supply of good-quality-water suitable for spraying and (f) informing and inviting the neighbouring farmers and making adequate arrangements for their comfortable stay during the demonstration and subsequent discussion. It may be seen here how important it is for any demonstration farmer to get in writing all the aspects of the pre-requisites, so that he can play his role effectively. Major operations are also to be carried out correctly and in time to the demonstration crop without which the package of practices becomes incomplete.

Preparation and Use of Operation Calendar : The operation calendar is prepared in the regional language in the form of a tear-off-calendar with details of date-wise particulars of cultivation operations required for the demonstration crop mentioned in every leaf. After the completion of the operations mentioned in any leaf of the calendar, the sheet is torn off and the next sheet immediately becomes visible with the next operational date flashed into the observer's view. Details of prearrangements also are given in the sheets. Thus the operation calendar serves not only as an "on-the-spot-guide" for the demonstration farmer for a day's operation but also as an "advance-reminder" for him of the next cultural needs of the demonstration crop.

The operation calendar is prepared in two parts. The first part deals with all the technical information for the crop-programmed upto its time of sowing of seeds. The following are the types of information that are given to the chosen demonstration farmer through the issue of the operation calendar Part I: (1) peculiarities and potentialities of the strain of crop chosen for demonstration, (2) certain warnings against the probable pit-falls are given, (3) details of the availability of seeds and other requirements, (4) advice regarding the taking up of soil samples and sending of information-sheet are also furnished, (5) special tools and implements needed for the cultivation are enlisted so that the farmer can see to their timely availability, (6) the extent of nursery needed and the preparation of the nursery are explained, (7) testing of the seeds for the germinability is advised and (8) description in detail of the preparation of the nursery bed and the main field, the application of basal dose of fertilizers and the sowing of seeds are given. Though the Extension Worker is surely going to be there on the spot for the last mentioned operation, details given in advance to the farmer have their own advantage in the sense that the latter makes all the prearrangements needed for the successful demonstration on the scheduled date.

The part II of the operation calendar furnishes through its pages in bold-written dates of the next and subsequent operations to be done to the crop. The dates are written both as per English and Tamil Calendars. Advance

intimation of the requirements like implements, pesticides, fertilisers etc. for the demonstration are also furnished through its pages. The figures are furnished calculated on acre-basis in the part I of the operation calendar and the fertilizer-doses are based on the soil-analysis, whereas, the figures furnished in the part II are applicable to the crop and its actual extent. Even advice regarding the stoppage of irrigation prior to the operations like spraying and top-dressing and keeping adequate quantities of water ready for irrigating the sprayed or top-dressed crop are given. If by chance, the soil analysis data are not obtained prior to the sowing of the seeds or transplanting of the seedlings, and on that account, the basal application is done on a blanket-dose, the final adjustment of the dosage of N, P and K is done through the top-dressing, the details of which are mentioned correctly in the part II of the operation calendar and confirmed through the reminder card. The ryot should not follow the details implicitly, when the climatic factors like rain, wind etc. handicap the operation on that date. Just like a true Extension Worker on the spot, the pages of the operation calendar gives adequate warnings for preventing such pit-falls. As warning notes given too early are likely to be forgotten, the timeliness of issue is also taken into consideration.

The recommendation letters for the concessional issue of pesticides are included as pages of the part II of the operation calendar so that the farmer need not take trouble and time to approach the Gramasevak or the Agricultural Extension Officer for the same.

Cards with address of the Extension Worker are also enclosed as pages of the operation calendar part II so that the farmer can just tear off the card, write the convenient date of the next operation, sign, affix stamp and post the same, without much of scriptory work or inconvenience. If necessary, in some cases even affixing of stamps can be done by the Extension Worker. The intimation of the exact dates of the major operations given by the demonstration farmer to the Extension Worker enables both to get prepared for the job. Tendencies of such cooperation and coordination are bound to get increased in both the Extension Worker and the demonstration farmer by the introduction of the method.

If the system is to work in the expected manner, the contents of the operation calendar I and II are to be vividly described to the demonstration farmer and his acceptance for following the method is obtained prior to the commencement of the demonstration plot. The operation calendar is arranged to be hung in a chosen place in consultation with the farmer. As the next date of the operation is flashed into his sight every now and then, the demonstration farmer adjust his other programmes accordingly.

The operation calendar is prepared for each crop separately and can be even printed and used. The particulars like dates of the various cultural

operations and the quantities of the various inputs alone may have to be filled up later and the rest of the technical matter commonly applicable can be printed out. Model Operation Calendar part I and II prepared for a specific crop, namely Paddy: I.R. 8 are enclosed as annexures A and B respectively. The address-printed "Intimation Cards", can also be in a printed form. Model 'Intimation-Card' as part and partial of the operation calendar is prepared and enclosed as annexure C.

Preparation of Reminder Card: The reminder card is a timely letter written by the Extension Worker and addressed to the demonstration farmer with details of the cultural operation needed for the crop and of the prearrangements for the conduct of the demonstration with the date boldly written in it. The dates and details noted in operation calendar normally coincide with those written in the reminder card, unless some changes are needed during the actual conduct of the demonstration which are decided by the Extension Worker every now and then. It is printed for every crop with suitable blank spaces left in them to be filled up by the Extension Worker. For almost every page of the operation calendar part II there can be one reminder card. The reminder Card is posted by the Extension Worker in such a way that it reaches the farmer atleast three days prior to the date fixed for any operation, so that he gets reminded of the action to be taken as prearrangements. Leaving the demonstration farmer with operation calendar alone is not a good practice even though the Extension Worker pays visits to the plot for all the major operations. In the absence of the personal visit of the Extension Worker for the minor cultural operations, the reminder card serves the purpose and satisfies the farmer to a great extent. Model reminder card is prepared and enclosed as annexure D.

As writing and posting of the reminder cards in time to the demonstration farmer is a job by itself, depending too much on memory in this regard may not lead us anywhere. A 'Reminder-Chart' can be kept by the Extension Worker and the dates on which the reminder cards are to be posted for different demonstration crops can be noted in the chart well in advance to facilitate unflinching despatch. The reminder charts, can be prepared for each crop separately with suitable columns opened for the different operations needed for the crop and the names and addresses of the farmers. As and when the demonstration farmers are fixed one after another and the plots laid out, the starting dates are known to the Extension Worker and based on the sowing dates, other operational dates are arrived at and filled up in the various columns after noting the farmers' names and addresses, one below another. The writing of the date in the Operation Calendar II and the Reminder chart can be done simultaneously. On seeing the Reminder chart every day the Extension Worker is reminded of the number of cases to be posted with the reminder cards that day. The Reminder-Chart makes the Extension Worker a prompt correspondent and makes the demonstration farmer to believe that the Extension Worker always

remembers him and his plot. This particular feeling, no doubt, gradually builds up better confidence in him, leading ultimately to better cooperation in the matter of successful cultivation of the demonstration crop. A model reminder chart is given in the Annexure - E.

Merits and Limitations of this System: The operation calendar and reminder card system of extension approach is a cheap method as it involves only the cost of printing the required number of copies of them suitable for different crops and getting them posted to the farmers. Even cyclostyled copies can be used as done by the author.

If the technical matter is approved by the Departmental authorities with the required accuracy and based on it the Operation Calendar and Reminder Card are prepared printed and put to use of the Extension Worker, even a beginner in service can effectively play his role.

Increasing the number of demonstrations is the only solution for result demonstrations and if it demands the employment of additional extension workers it may necessitate additional drain from the public exchequer. Probably, a better solution *VIZ.*: the introduction of the system of operation calendar and reminder card may improve the working efficiency of the Extension Worker and thereby, increase his capacity to handle greater number of demonstrations than at present. By making a single visit to the demonstration farm for selecting the plot, describing the system and supplying the operation calendar to the demonstration farmer, the job of the Extension Worker is done wonderfully well in respect of all the prearrangements needed for the demonstration upto its sowing stage. The operation calendar serves not only as an 'on-the-spot-guide' for the farmer for a day's operation but also as an 'advance-reminder' for the next subsequent cultural needs of the crop. It greatly reduces not only the number of trips of the Extension Worker to the demonstration farm but also the dependence of the farmer on the Extension Worker for minor details.

It is wrong to think that the Extension Worker is replaced by this method. The Extension Worker must be present for all the major operations but his presence becomes superfluous during minor operations like weeding, hoeing, irrigating, earthing up, subsequent sprayings and dustings etc., if the operation calendar is put to use. The time and energy of the Extension Worker is saved for better utilisation. The crop gets the benefit of the correct adoption of even the minor operations which is a 'must' for aiming at extra-ordinary yields.

Receipt of friendly letters psychologically viewed, is something which elates any individual and the demonstration farmer is not an exception to the rule. In his case the reminder card is more than a personal letter as it gives him the technical guidance most needed for his crop besides the personal formal enquiry. If the reminder card is made complete, consise, clear, correct, courteous, neat and readable it would serve its purpose.

Another advantage of the Operation Calendar and Reminder Card system is that if any method-demonstration is converted into a result-demonstration on the specific request of the farmer, the system can be put to practice with still limited number of assured visits of the Extension Worker. The demonstration farmer is getting trained to help the Extension Worker and thereby help himself and in due course he can become a true support to the Department.

As the system by-passes to an extent certain hurdles like physical hazards and inadequacy of time for the Extension Worker, demonstrations can not only be thought of to be laid out in greater number but also in the interior villages hitherto neglected. In problem areas and problem soils, it is a known fact, that unless all the recommended package of practices are followed in full the demonstration cannot be successful. In such a situation the operation calendar helps both the farmer and the worker. Even for the district trials, the seed farms and the Adoptive Research programmes the method can be employed with definite advantage. Yet another benefit is that the operation calendar can be concise and made applicable for conducting even Method Demonstrations. In short, wherever there is a necessity to establish contact with any farmer, the system of operation calendar and reminder card can be profitably utilised.

Besides the definite advantages, associated with the device there are certain limitations. Unless the demonstration farmer and the Extension Worker are fully conversant with the procedural adoption of the method and accept to use the same, it may not lead them anywhere. Posting of reminder cards in me, with all the required changes as and when necessary, is a job by itself. As it is also a question of involving the farmer slightly to a greater extent than in any other method, it is not known how far any Extension Worker can marshal in any area.

The Past Experience with the Device: The system of operation calendar and reminder card was put to test in Coimbatore district and found that it gave high dividends, however crude and non-standardised it was. Many farmers were selected and a variety of crops subjected to the method. The approach and the response were successful and encouraging. The consolidated expression of the farmers' opinion about the working of the system are below :

"There is nothing equal to your physical presence on the spot at every operation. We are fully aware how you cannot go over to all the demonstration plots in such frequency. At least if your guidance and presence are available for carrying out the major operations to our crops, we are happy. In respect of the minor operations we are contented with the helpful guidance offered through the system. But for the help, we could not have raised so fine a crop through the systematic cultivation. Now that, we have understood the system well and adopted it for one season, we are more confident at present in taking up such social obligations. Knowledge imparted to us to make use of the method is by itself a real benefit!!". One of the farmers went to the extent of suggesting

that the method could be adopted not only for demonstration but also for his large scale cultivation of new varieties under normal farm-conditions and requested that the operation calendar be prepared and given to him by a competent person for his regular adoption as he preferred it to any leaflet, hand-out or booklet. His contention was that though the contents are the same in both the aid, the date-wise-split-up of the operational technique in the case of the operation calendar served his purpose better. What has been achieved can, as best, be taken as a prelude for further concrete action.

Scope and Suggestion : The operation calendar and reminder card system of approach has a wide range of scope for adoption if they are standardised and the same can be suitably modified to suit the following: (1) National Demonstration scheme including Secondary and follow-up Demonstration, (2) Farmers' training programme peripatetic demonstration, (3) Adoptive Research scheme, (4) Package schemes, (5) Export Oriented Programmes, (6) Small and Marginal Farmers Schemes, (7) District trials of the Research Organisation, (8) Seed Farms and (9) Composite demonstrations of the Block Development Scheme. If a Pilot-Scheme in this respect is launched and worked in the advanced-district of Coimbatore with the assistance of the staff and financial allocation, the practicability of the system can be well studied and understood.

Summary : The awareness of the farmers on the utility of scientific agriculture and also the multiplicity of high-yielding-strains have increased the responsibility of the Extension Worker. A device is necessary for meeting the challenge. Operation Calendar and Reminder Card are the proper aid-tools for the execution of a large number of demonstrations characterised by the timeliness and sequence of operations with convincing accuracy and adoptability. The device aims at the improved efficiency of the extension worker for rapid transmission of the latest research findings and enables him to reach even the most interior pockets hitherto neglected. Standardisation in the use of the tools comprising operation calendar and reminder Card would be necessary in its practical approach. In the light of past experience, details of scope, utility and adoption are furnished to serve as a model, basis for a pilot scheme. Above all it creates a sense of participation in the present-day-farmers, an important psychological ingredient for success in the 'Green Revolution'.

Acknowledgement : The author wishes to place on record his deep sense of gratitude to Dr. D. Daniel Sundararaj, Vice-President of the Madras Agricultural Students' Union, for having issued an effective appeal to the members of the Madras Agricultural Students' Union without which the contribution of the article would not have taken place. His thanks are also due to Dr. S. Gopalakrishnan and Thiru V. Subramaniam for their valuable help and guidance in giving a shape to this article. He takes this opportunity to give expression to his sincere thanks and appreciation to the various Assistants who helped him and the enthusiastic farmers of Coimbatore district, who rendered all the facilities for him to put the system to practice as a test.

ANNEXURE - A

MODEL OPERATION CALENDAR

Details are furnished sheet after sheet. Perforations can be had to facilitate easy tear-off of the sheets

Cover sheet — OPERATION CALENDAR — PART I
PADDY - IR 8

I Sheet

Factors you already know of

- 1 - Paddy IR 8 is a High Yielding Variety capable of yielding a heavy crop after taking a heavy dose of fertilizers.
- 2 - It is short and non-lodging.
- 3 - Age - 135 days.
- 4 - It is a white riced variety suitable for all home-preparations.
- 5 - It is insensitive to photo-periods but thermo-sensitive.

II Sheet

Factors about which you are to be careful

- 1 - It is susceptible to Bacterial blight.
- 2 - A good drainage system is essential.
- 3 - Avoid saline or alkaline soil.
- 4 - The rice is slightly getting broken during hulling.
- 5 - The rice has high amylose content and low gelatinization temperature.
- 6 - The seeds are dormant for 3 weeks after harvest.
- 7 - Avoid very chill weather during its flowering phase.

III Sheet

Suitable seasons

- | | |
|-----------------|---------------------|
| 1 - Swarnavari | : April-May |
| 2 - Kar | : May-June |
| 3 - Early Samba | : July |
| 4 - Navarai | : January-February. |

Avoid very chill months during flowering stage. Get your soil and water tested. Contact your Gramasevak. (You can use the next sheet for furnishing information to associate the soil samples).

IV Sheet

Soon after knowing the suitability of the soil and the water contact your Gramasevak or Agricultural Extension Officer and try to get the seeds.

- Seed rate : 15 kg per acre
- Beware of dormancy.

V Sheet

After getting the seeds

- 1 - See whether you have got Agrosan GN at the rate of 2 gm per kg of seed.
- 2 - Test the seeds for their viability.
- 3 - Dry the seeds and preserve well.

VI Sheet

You are the 'Demonstration Farmer !!

Your crop is a 'Model Crop !!'

Please keep all the requirements for the crop ready on hand :

- 1 - implements in good condition.
 - 2 - ropes, pegs, sticks etc. for line planting.
 - 3 - all the required pesticides.
 - 4 - all the required fertilizers.
- Consult your Gramasevak.

VII Sheet

In the correct season

Prepare 10 cents of nursery for every acre of planting. Apply 2 cart loads of farm yard manure or 10 bundles of green manure for 10 cents of nursery. Prepare "Cent-Nursery" beds 8' broad. Leave 1' channel all around the nursery beds.

VIII Sheet

Intimate the concerned officials in advance the date of sowing.

(You can make use of the next sheet for the purpose)

Intimate other farmers, village leaders and arrange to have a good gathering that day.

IX Sheet

Two days prior to sowing

Treat the dry seeds with Agrosan GN @ 2 gm per kg of seeds.

Keep it for 6 hours.

Wash well and arrange to sprout the seeds.

Level the nursery beds and keep them ready for sowing.

X Sheet

On the day of sowing

- 1 - Keep all things ready for the demonstration.
- 2 - Divide the seeds proportionately to each bed of nursery.
- 3 - Keep 3" of water in the nursery bed.
- 4 - Sow the seeds uniformly on the raised beds by walking along the channels.
- 5 - Do not fail to get the operation calendar Part II duly noting the subsequent dates and operations.

XI Sheet

List of things required for an acre

- 1 - Green manure ... 5 cart loads
(or Farm Yard Manure 10 cart loads)
- 2 - Fertilizers -
 - a) Ammonium sulphate ... 375 kg
 - b) Super phosphate ... 220 kg
 - c) Muriate of potash ... 60 kg
- 3 - Burmese sattu and Puddler
- 4 - Sprayer and duster
- 5 - Japanese intercultivator
- 6 - Pesticides -
 - a) Parathion ... 650 ml
 - b) Cuman ... 650 ml
 - c) BHC 10% ... 5 kg
 - d) DDT 5% ... 5 kg

(Recommendation letter for the concessional issue of pesticides is enclosed)

XII Sheet

Recommendation letter for the issue of pesticides on concessional rates

Name of the demonstration farmer ...

Address ...

Crop and extent ...

Survey No. and Village ...

Names and quantities of pesticides required ...

1.

2.

3.

4.

5.

6.

Special District Agricultural Officer,
Farmers' Training Centre,
Coimbatore.

ANNEXURE - B

OPERATION CALENDAR - PART II	
PADDY: IR 8	
Cover sheet } Date of sowing }	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>

I Sheet	
<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
Tamil Date	English Date
<p>Arrange to get these things ready for spraying your nursery :</p> <p>a) Cuman ... 25 gm b) Parathion ... 5 ml c) Water ... 10 lit d) Sprayer in good condition.</p>	

II Sheet	
<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
Tamil Date	English Date
<p>Spray the nursery of 10 cents with :</p> <p>1 - Cuman ... 25 gm 2 - Parathion ... 5 ml 3 - Water ... 10 lit</p> <p>(No rain at least for 8 hours after spraying)</p>	

III Sheet	
<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
Tamil Date	English Date
<p>Commence preparing the main field :</p> <p>1 - Two ploughings with iron plough 2 - Green manure @ 5 c. l. per acre 3 - Burmese sattur for trampling</p> <p>(Keep 25 kg of Ammonium sulphate or 10 kg Urea ready for top dressing)</p>	

IV Sheet	
<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
Tamil Date	English Date
<p>Top-dress the nursery crop (10 cents) with Ammonium sulphate ... 25 kg (or Urea - 10 kg)</p> <p>Ensure uniform distribution Irrigate the nursery beds immediately</p>	

V Sheet	
<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
Tamil Date	English Date
<p>Use the Puddler to puddle the main Field</p> <p>Keep the following fertilizers ready on hand :</p> <p>1 - Ammonium sulphate ... - kg 2 - Urea ... - kg 3 - Super phosphate ... - kg 4 - Muriate of potash ... - kg</p> <p>(Please post the Intimation Card today)</p>	

VI Sheet	
<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
Tamil Date	English Date
<p>Apply the following fertilizers and plough last :</p> <p>1 - Super phosphate ... - kg 2 - Muriate of potash ... - kg</p> <p>Keep the following things ready on hand :</p> <p>1 - Ammonium sulphate 2 - Urea 3 - Rope and pegs for line planting 4 - Banana fibre for bundling the seedlings</p> <p>Irrigate the nursery</p>	

VII Sheet	
Tamil Date	English Date
28th Day	
<p>Pull the seedlings straight upwards to get roots intact and tie them into small bundles using banana fibre. Keep 1" of water in the main field after levelling.</p> <p>Apply Ammonium sulphate ... — kg per acre With the help of long-rope transplant the seedlings in lines</p> <p>Let the space between the rows be 6" and between plants be 4"</p> <p>Keep 2 seedlings per hole</p> <p>Push the roots straight into the muddle but not more than 1" depth</p>	

VIII Sheet	
Tamil Date	English Date
43rd Day	
<p>Intercultivate the line crop with Japanese Hoe. Keep the following pesticides ready:</p> <p>1 - Cuman ... 100 gm</p> <p>2 - Parathion ... 100 ml</p> <p>(Please post the Intimation Card)</p>	

IX Sheet	
Tamil Date	English Date
53rd Day	
<p>Spray the crop with</p> <p>1 - Cuman ... 100 gm</p> <p>2 - Parathion ... 100 ml</p> <p>3 - Water ... 100 lit</p> <p>(No rain at least for 8 hours after spraying)</p>	

X Sheet	
Tamil Date	English Date
60th Day	
<p>Keep the following things ready:</p> <p>1 - Japanese intercultivator</p> <p>2 - Urea (or Ammonium sulphate)</p> <p>3 - Cuman ... 250 gm</p> <p>4 - Parathion ... 250 ml</p> <p>(Please post the Intimation Card)</p>	

XI Sheet	
Tamil Date	English Date
68th Day	
<p>1 - Keep $\frac{1}{2}$" of water in the field and apply</p> <p style="padding-left: 20px;">Ammonium sulphate ... — kg</p> <p style="padding-left: 20px;">(or Urea) ... — kg</p> <p>2 - Intercultivate with Japanese hoe</p> <p>3 - Spray the crop with:</p> <p style="padding-left: 20px;">a) Cuman ... 250 gm</p> <p style="padding-left: 20px;">b) Parathion ... 250 ml</p> <p style="padding-left: 20px;">c) Water ... 250 lit</p> <p>4 - Irrigate</p> <p>(No rain at least for 8 hours after spraying)</p>	

XII Sheet	
Tamil Date	English Date
73rd Day	
<p>Observe the crop daily to detect 'Blight disease'. If symptoms are visible please contact Agricultural Extension Officer immediately.</p> <p>Keep the chemicals ready on hand:</p> <p>1 - Cuman ... 300 gm</p> <p>2 - Parathion ... 300 ml</p> <p>3 - BHC 10% ... 5 kg</p> <p>4 - DDT 5% ... 5 kg</p>	

XIII Sheet

83rd Day

Tamil Date English Date

Spray the crop with:

1 - Cuman	...	300 gm
2 - Parathion	...	300 ml
3 - Water	...	300 lit

Irrigate

XIV Sheet

98th Day

Tamil Date English Date

Dust the crop with:

1 - BHC 10%	...	5 kg
2 - DDT 5%	...	5 kg

Irrigate

XV Sheet

123rd Day

Tamil Date English Date

Your crop is going to be harvested on.....

Please arrange to celebrate a 'Field Day' by inviting all the village leaders and farmers. Please keep men and material ready for harvesting, threshing, drying, weighing and bagging.

(Please post the Intimation card)

XVI Sheet

135th Day

Tamil Date English Date

Harvest the crop, thresh, winnow, dry, bag and weigh before the audience.

Record the yield.

You can explain the cultivation methods adopted to other cultivators.

Arrange to dry the produce separately during subsequent dates and record the weight and intimate the Agricultural Extension Officer and the Special District Agricultural Officer.

ANNEXURE - C

INTIMATION CARD
(For the use of the Demonstration Farmer)

<p>From:</p> <p>Thiru/Thirumathi/Selvi</p> <p>Village</p> <p>Post</p> <p>Block</p> <p>District</p>	<p>To:</p>
--	------------

Dear Sir/Madam,

The following operations are programmed to be done as demonstration on

1. } (Details as per Operation Calendar page No.)

2. }

All the essential materials required for the above demonstration have been obtained/will be obtained and kept ready.

I have also intimated the village leaders, local gentries and others concerned.


Please arrange to go over here that day, conduct the demonstration and continue to help me in raising a good crop.

Demonstration Farmer.


The Madras Agricultural Journal

ANNEXURE - D

REMINDER CARD - Page I

Dear Thiru/Thirumathi/Selvi	Farmers Training Centre, Coimbatore. Date :
Hope the demonstration crop in your holding is progressing satisfactorily and that you are observing the crop daily.	
The Operation Calendar Part II handed over to you may please be used to gain perfection in your cultivating the crop. You are already in the know of things that how the crop can prove a great success only if all the cultural operations, minor or major are done correctly and in time.	
I am sure that you would have already noted the date and details of the next operation needed for the crop and that you will be making necessary arrangements. Technical details are once again given on the reverse for ready reference.	
I am going over there on _____	
I am deputing my Assistant on _____	
Yours sincerely, Special District Agricultural Officer.	

REMINDER CARD - Page II

(The contents of this page vary not only with different crops but also with different stages of the crop.	
The contents of this page will be the same as per the page of the Operation Calendar Part II, unless the date and other details are required to be altered as per necessity. There will be one Reminder Card for each of the pages of the Operation Calendar Part II.	
(For Paddy IR.8 Operation Calendar as many as 16 Reminder Cards are required)	

ANNEXURE - E

REMINDER CHART

Paddy IR 8 demonstrations and the dates fixed for despatching the Reminder Cards

Sl. No.	Name and Address of the Farmer	Dates fixed for despatching the Reminder Cards			
		Reminder Card No. 1	Reminder Card No. 2	Reminder Card No. 3, 4, etc., etc.	Reminder Card last
1.	X	X	X	XXX	X
2.	Y	X	X	XXX	X
3.	W	X	X	XXX	X

(Dates are written by the Extension Worker and the chart is hung in the office. The Assistant takes the Reminder cards and post them without fail on the noted dates. As and when new farmers are enrolled and their crops are sown subsequent entries are made in the chart.)

The Award of Ph. D. Degree

The University of Madras has awarded the degree of Doctor of Philosophy to Mr. S. Varisai Muhammad for the thesis entitled "Studies on Interspecific hybrids in genus *Arachis* L."

Our hearty congratulations to DR. S. VARISAI MUHAMMAD, Crop Specialist (oilseeds), Tamil Nadu Agricultural University.