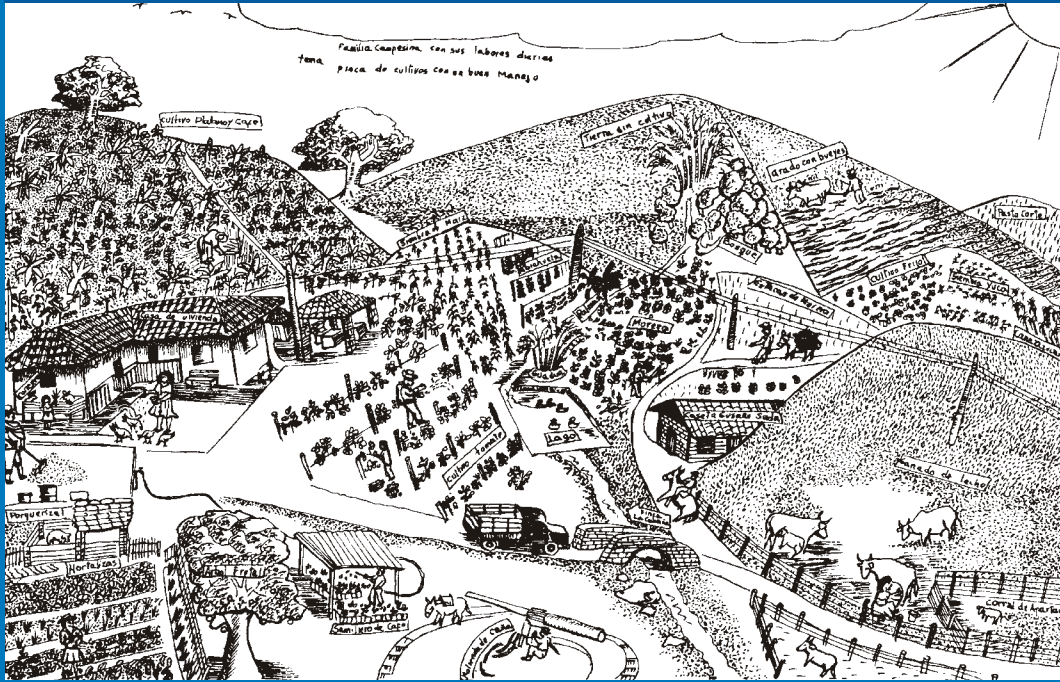


Setting Our Objective



ISBN 958-9183-30-1



Fundación Carvajal



The International Center for Tropical Agriculture (CIAT) is dedicated to the alleviation of hunger and poverty in tropical developing countries, through the application of science to increase agricultural production while conserving natural resources. CIAT is one of 18 international centers of the Consultative Group for International Agricultural Research (CGIAR). The CGIAR is a group of 40 countries and international agencies that support agricultural research for development in the tropical countries of the world.

Participatory Research in Agriculture (IPRA) is a CIAT special project created in 1987 with the objective of developing methodology for involving small-scale farmers in the design and evaluation of appropriate agricultural technology. IPRA is sponsored by the W.K. Kellogg Foundation.

The Carvajal Foundation, located in Cali, Colombia, is a non-profit organization created in 1961 with the objective of promoting the social, economic and ecological development of low-income communities. The Foundation supports programs related to microenterprise, low-income housing, community radio, health, education, community recycling, crafts, and agricultural development. It contributes to the development of similar foundations nationally and internationally through sharing field experience.

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**José Ignacio Roa V.
Jacqueline Ashby**

Graphic Design & Illustrations

Oscar Vargas López

Cover

**Dibujo de Hugo Hernán Agredo.
Vereda Cinco Días, Cauca.**

Agronomic Consultant

Dr. Edwin Bronson Knapp-CIMMYT

Translation

**Ann Braun, Paideia Resources,
Nelson, New Zealand.**

Handbooks for CIAT

Setting Our Objective

HANDBOOK No. 04



Fundación Carvajal



Presentation

This handbook is the result of participatory research carried out by several institutions and rural communities. The handbooks were designed by farmers. The examples are based on real cases and form part of the experience of the Local Agricultural Research Committees (CIALs) that participated in the project from the beginning. The following CIALs collaborated in the preparation of this handbook: Cinco Días, El Diviso, Pescador, San Bosco, Sotará and Portachuelo in the state of Cauca, Colombia.

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IPRA Project
Jacqueline A. Ashby
Jorge Alonso Beltrán
Teresa Gracia
Ma. del Pilar Guerrero

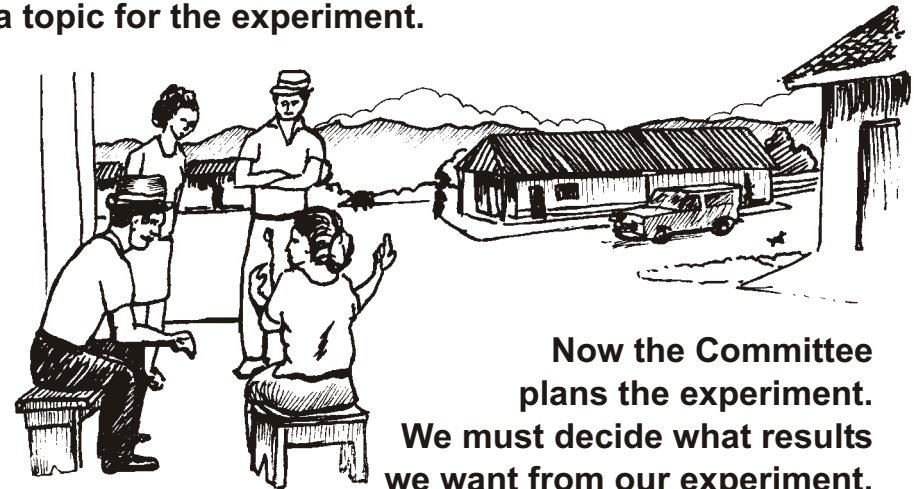
Carlos Quirós
Jose Ignacio Roa
Carlos Arturo Trujillo
Freddy Escobar

The Carvajal Foundation - Agricultural and Livestock Program

The Local Agricultural Research Committee tests ways to improve agriculture.



In the diagnosis, everybody decided on a topic for the experiment.



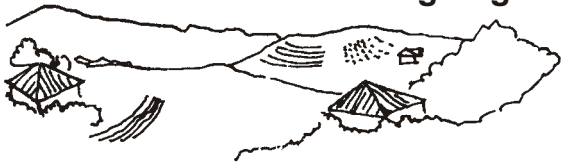
Now the Committee plans the experiment.
We must decide what results we want from our experiment.



**When we plan the experiment,
we are making decisions.**



**We decide, where, how and with whom we
are going to do the experiment.**



**To plan our experiment, we take advantage of the
experienced farmers in the village and the
technicians who know about local farming.**



The **experienced farmers** can help us a great deal.

The practices they have already experimented with can be used to plan our experiments.



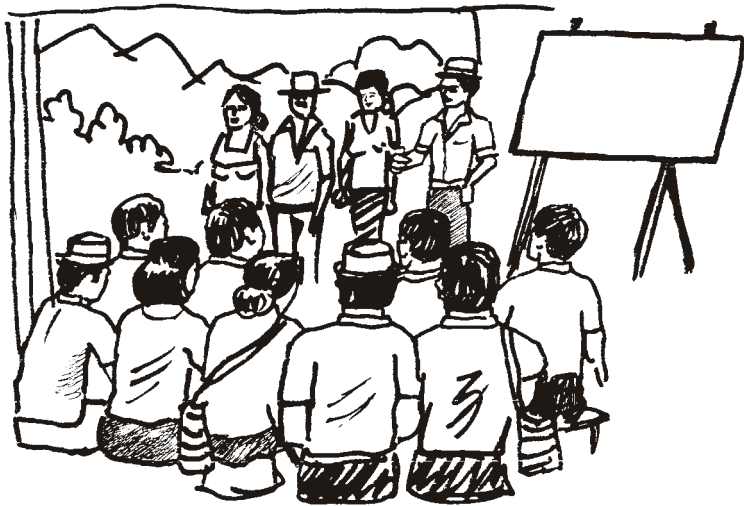
The **technicians** have information for our experiments.



Technicians and farmers do research and learn together in the experiments.



When the Committee is beginning its research a technician visits us regularly to see how the experiments turn out.



When we have more experience, the technician visits us only when we ask him to.

Little by little we learn to do research for ourselves.

While we are planning our experiment the Committee members meet with experienced farmers and technicians.

We explain that the meetings are to help us plan our experiment.



We review the diagnosis to see if we all understand the topic and the reasons it was chosen.

**Before designing the experiments,
we define our objective.
Sometimes the objective is very clear;
sometimes, it is not.**



A clear objective is like planting a good seed.

**To set a clear objective,
we ask this question:**

**What do we expect to learn
or find out from our experiment?**



**In the first planning meeting,
we talk about the diagnosis. This helps us
make a clear objective for our experiment.**

**We go over the most important topics
and why they are important.**



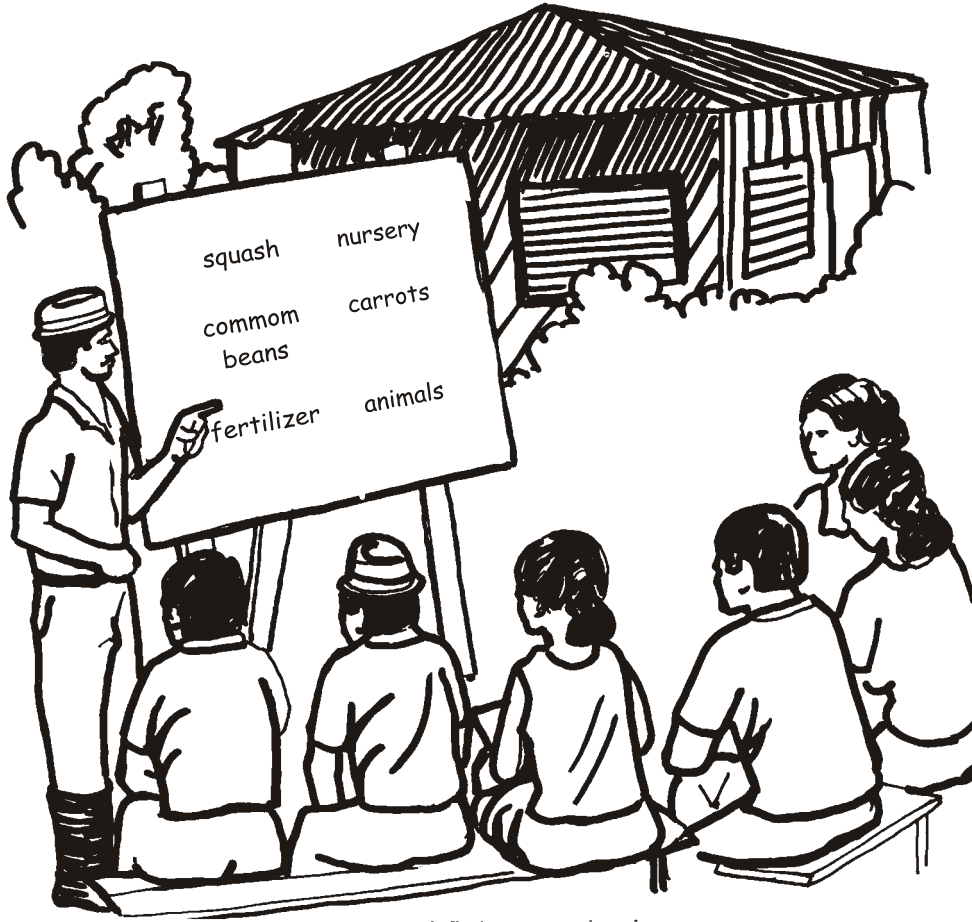
When a Local Agricultural Research Committee reviewed their diagnosis, they remembered that the most important topics were to:

1. Test varieties, fertilizers and ways to plant squash.
2. Test varieties, fertilizers and ways to plant common beans.
3. Grow carrots and fertilise them with chicken manure.
4. Test new potato varieties.



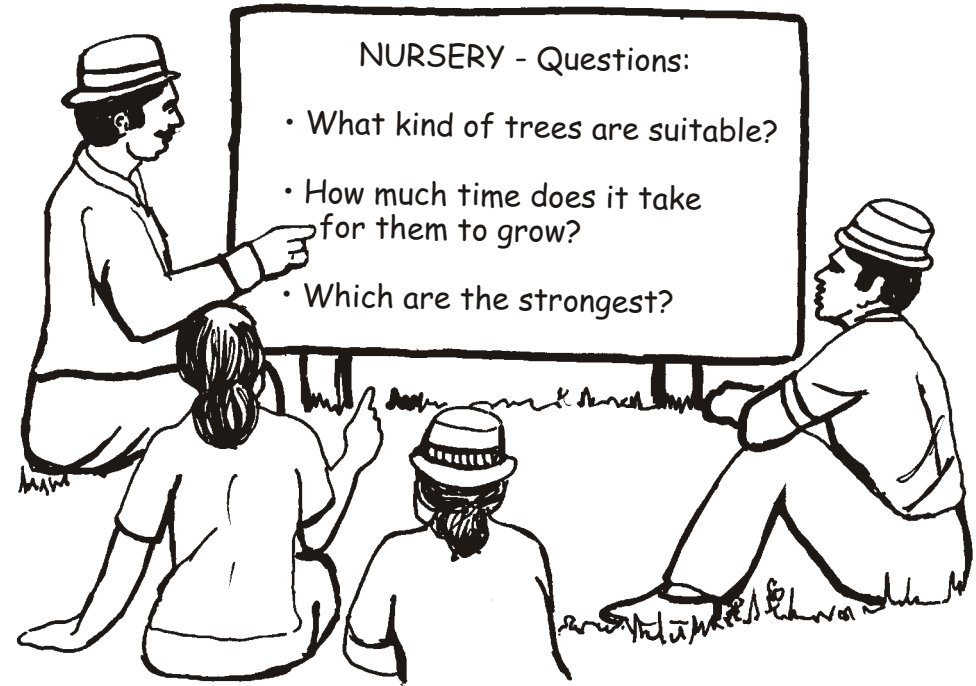
The farmers on the Committee were not sure which was the most important topic for the community

They met again with the community. They discussed the topics and reached an agreement.



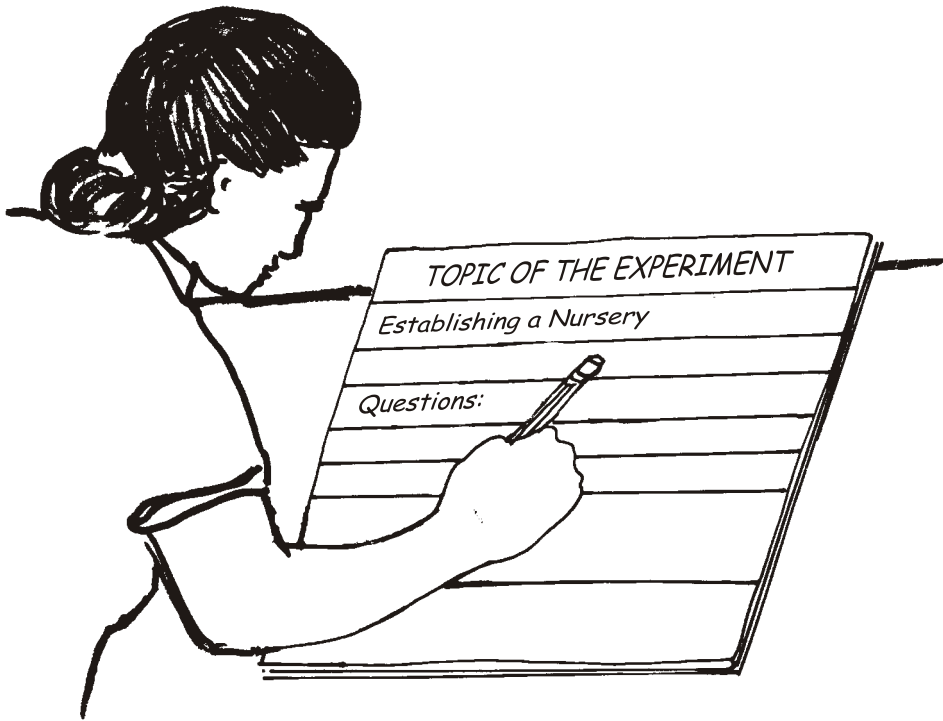
The community decided to test beans because they are more important food than squash.

After the topic for the experiment is decided in the diagnosis, we think about questions that we want to answer with the experiment.



We clarify what we expect out of the testing.

The Secretary of the Committee writes down the topic and our questions about it in the Record Book.

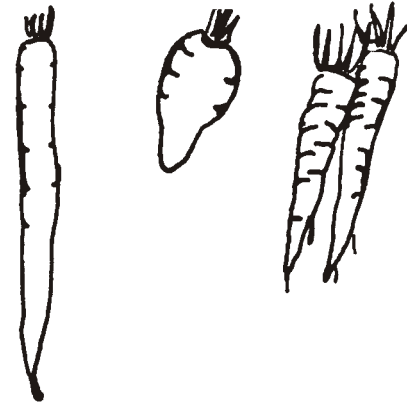


In one example the Community decided to do an experiment with carrots and fertilise them with chicken manure.

They had several questions about this topic:



Which carrot **variety** is best adapted to the zone?



How much chicken manure do we need to fertilize each variety?

These questions help us define the objective for our experiment.



The Secretary writes down our questions on the topic in the Record Book.

Our topic is:

Growing new maize varieties.

Our question is:

Which maize variety will stand instead of falling over in strong winds?



Our objective is to:

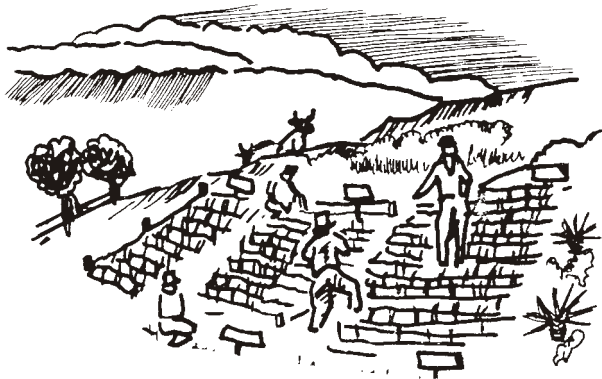
Compare the tall maize variety that we have with a short variety that might stand in strong winds.



Another topic is to experiment with growing potatoes, something we've never grown before.

Our question is:
which potato varieties do best in this climate?

Our objective is:
to compare potato varieties to find the ones that do best in this climate.



Another topic is to experiment with growing bush bean varieties instead of climbing beans.

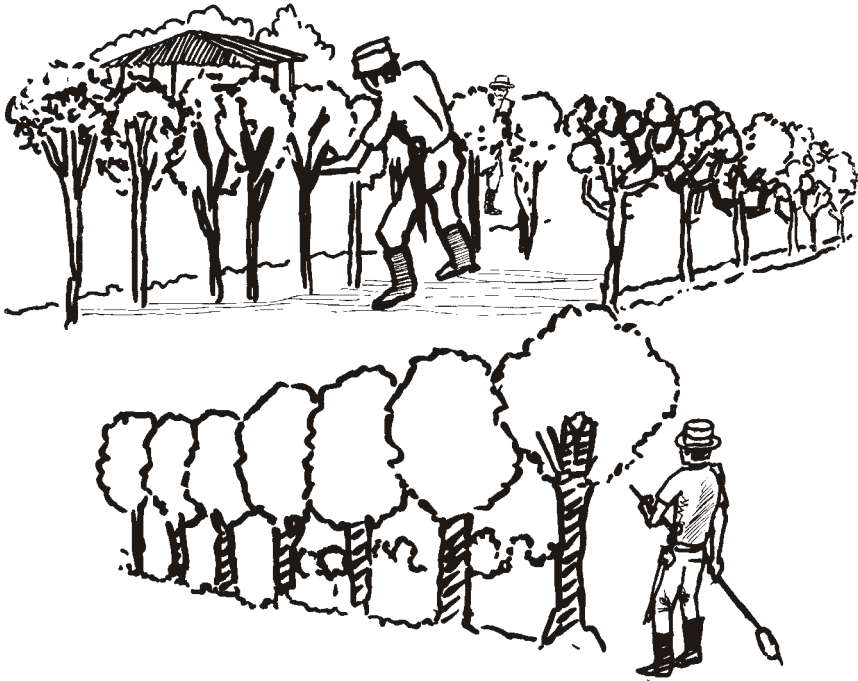
The question is:
which bean **varieties** resist the pests best?



The objective is:
to compare 3 new bean varieties with the one we grow to see which ones resist the pests best.

Another Community chose to experiment with ways to plant trees as their topic.

The question is:
what kind of trees
are good for live fences?



The objective is
to compare 3 different kinds of trees,
planting them in live fences
and to select the best ones.

Another topic is planting passion fruit.

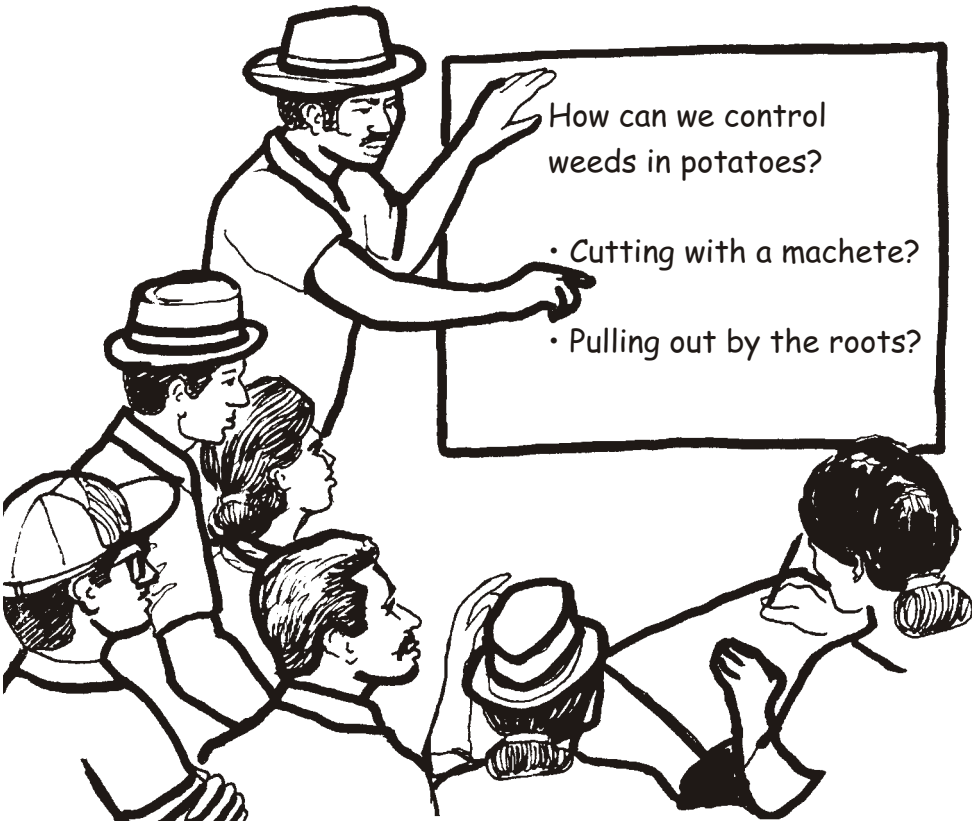
The question is:
where and how
can we plant passion fruit
without taking up all the space
in the garden plot?



The objective is
to compare 2 different ways
of planting the passion fruit,
on bamboo supports and
growing it in strips in the fields.

We can get help from the experienced farmers we invited to participate in planning the experiment.

They will most likely have some answers to our questions.



In this way we can learn from the experienced farmers.

A coffee growers' committee decided to experiment with maize.

A farmer who was at the meeting had planted maize on a slope.

He talked about the planting distance and the fertilizer that he had applied.

He obtained very good results.



The Research Committee decided to take advantage of his experience to plan the experiment.

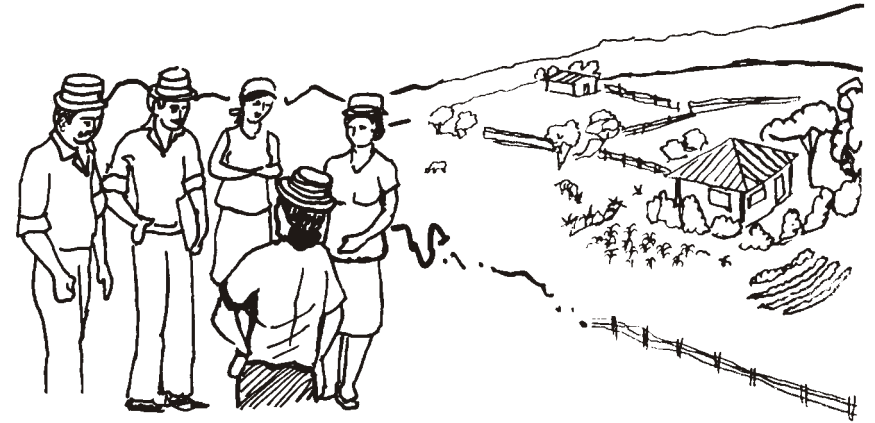
Sometimes we have many questions or expect many results.

This can complicate the experiment or make it expensive.



It is better to select one important result and plan one experiment that we can manage well.

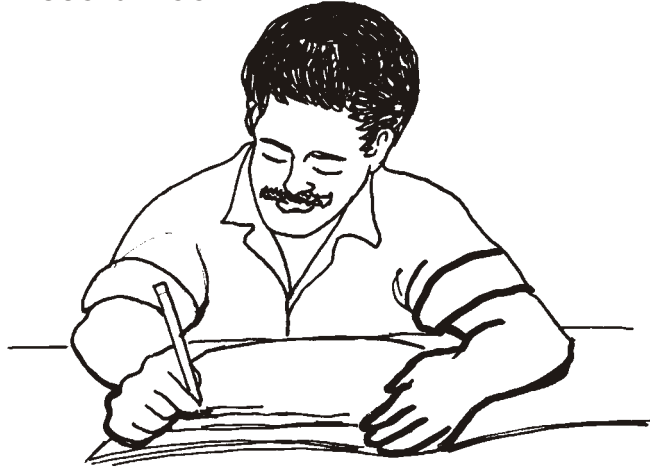
If at the first planning meeting we do not know enough to arrive at a clear objective, it is better to look for more information.



We then agree how to get the necessary information and plan another meeting on a day and an hour that is convenient for everyone.



We write when our objective is clear
it down in the **Record Book**.



The Record Book is for writing down all the important things
we need to remember about the experiment.



The Record Book helps us remember
the important things of the experiment.

With all the information at hand and a clear objective,
we can carry out the next step:

We are going to design our experiment!

