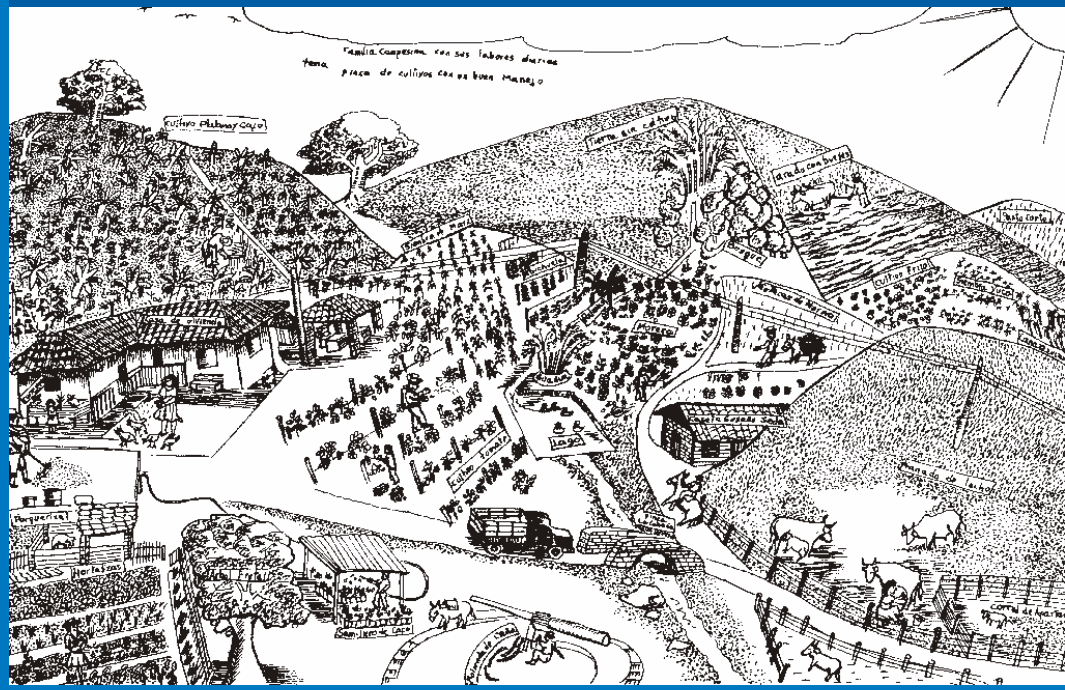
A Real Case 09



ISBN 958-99438-64-0

Rural Innovation Institute

Fundación Carvajal

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture

IPRA
Investigación Participativa

The International Center for Tropical Agriculture (CIAT) is dedicated to the aleviation 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.

The publicaton of these handbooks was made possible by the generosity of the W.K. Kellog Foundation.

CIAT Publication No. 222
IPRA Project

Edition
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.

ISBN 958-9183-35-2

Cartillas para CIAL

Un Caso Real

CARTILLA No. 09

Rural Innovation Institute
Fundación Carvajal
CIAT Centro Internacional de Agricultura Tropical International Center for Tropical Agriculture
IPRA Investigación Participativa

Presentación

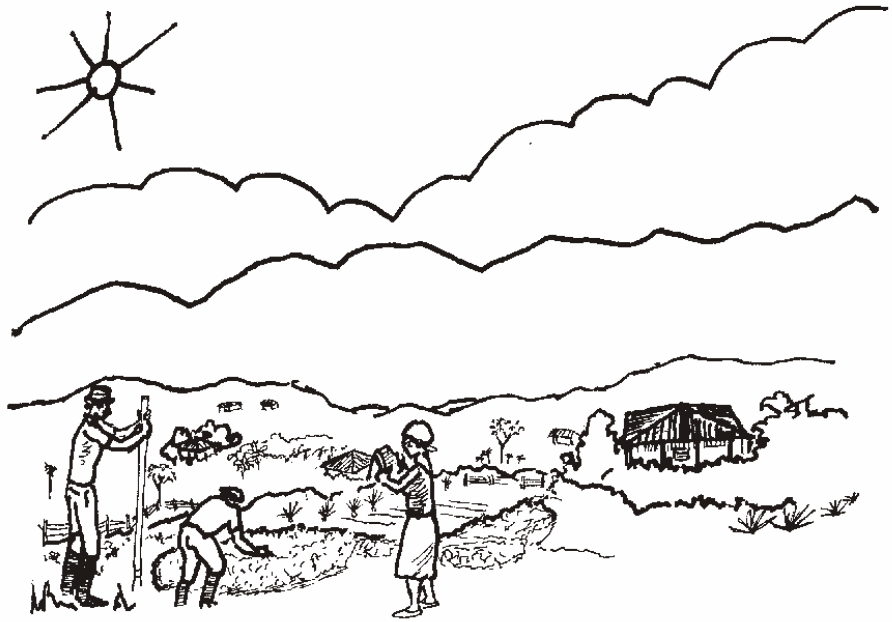
Esta cartilla es el resultado de un trabajo de investigación realizado por instituciones y comunidades. Los elementos principales de su diseño fueron escogidos por sus propios lectores potenciales: los agrucultores. Los ejemplos narrados son reales y forman parte de la experiencia de los Comités de Investigación Agrícola Local que participaron en el proyecto desde el comienzo. En la elaboración de las cartillas tomaron parte los Comités de Investigación Agrícola Local de la s veredas Cinco Días, El Diviso, Pescador, San Bosco, Sotará y Portachuelo de Cauca, Colombia.

CIAT Publication No. 222
ISBN 958-9183-35-2
Press run: 200 copies
Printed in Colombia
January, 1993

IPRA Project (Participatory Research in Agriculture). 1993. CIAL Handbooks; Local Agricultural Research Committees (CIALs). Handbook No. 09. A Real Case. Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia. 35p.

- IPRA Project
  Jacqueline A. Ashby — Carlos Quirós
  Jorge Alonso Beltrán — Jose Ignacio Roa
  Teresa Gracia — Carlos Arturo Trujillo
  Ma. del Pilar Guerrero — Freddy Escobar
- The Carvajal Foundation - Agricultural and Livestock Program

Many communities and farmer associations
have created Local Agricultural Research Committees.



ll of them want to improve the farming
in their communities, learn new things
and make progress.

In the village of Cabuyan a Committee experimented
with varieties of soybean, a crop
that they had never planted before.

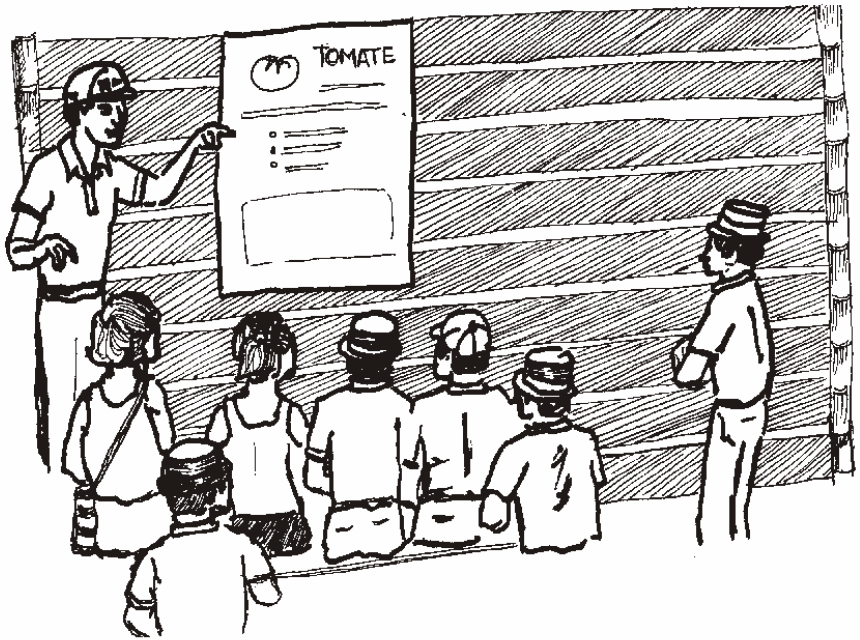
They found a variety well adapted to local conditions.

And they learned how to use
soy products in the family diet.
Today the Committee is making bread, milk
and cheese products from soybeans.

Each experiment is different. Some experiments
do not go well, but there is always something
to learn from each experience.

Here's the history of the Committee
at El Diviso, Colombia.
They've been providing a research service
to their community for two years.

This is how the El Diviso Committee
tells their story.



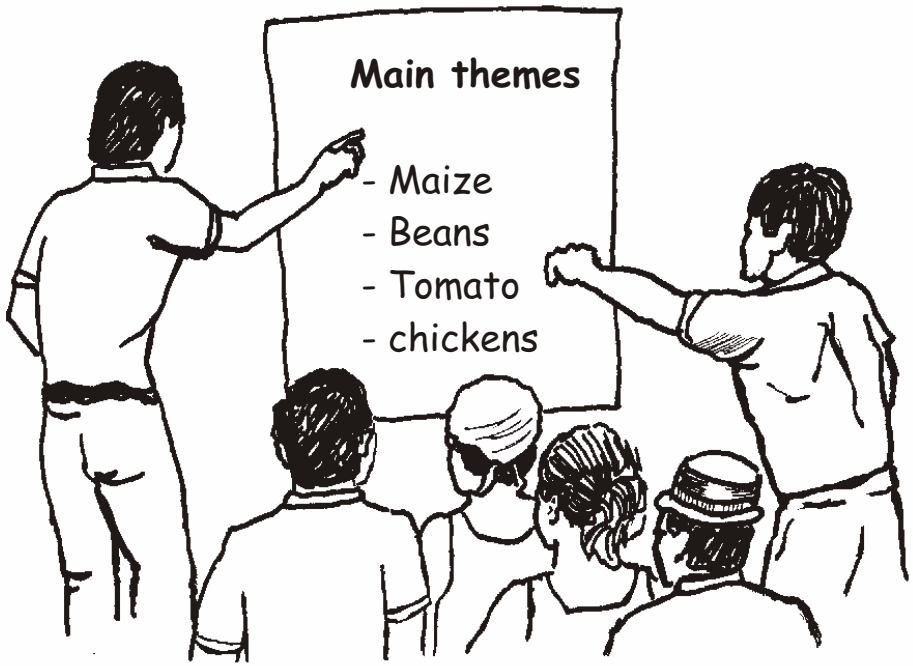
In El Diviso, we know how important it is
to organize ourselves.
We have a village farmer's association
with 54 members.

In our area the main crops are maize,
tomato, and coffee.

A researcher from an agricultural
research center came to visit us one day
and told us about some farmers
who had formed village research groups

We'd heard about research but we weren't sure
what it meant.
We understood that research could help
improve farming, and the idea caught our attention.

We asked many questions of the researcher
and as we talked our interest grew.



We invited him to a meeting
of our farmer's association.

We set a date and a time for the meeting
and invited all the members of our association.

The meeting was a success.
Many people came who wanted to know more
about research and about farmer research groups.

he researcher helped us do
a diagnosis of our farming situation.
We worked in small groups.
Many people made suggestions and we realized
we couldn't work on all their ideas at the same time.
We chose 4 main themes: maize, beans, tomato
and chickens.

We decided that maize was
the most important of the four.
Maize is the staple food for families
in our village.
We use maize to prepare meals
for the hired labourers who help us
harvest our coffee.

Our traditional Christmas foods are made of maize.
We even use it to feed our chickens.

And the maize we were growing
had a few problems.

It grew so tall that the wind
often knocked down the plants,
damaging the ears and making
them harder to dry.

We wanted to find a short variety
that didn't fall over in windy weather.
We wanted our maize to dry faster
and and to resist disease.

We wanted a commercial variety
with large grains, and large well-formed ears.

Once we had agreed on our priorities,
we chose 4 people to serve on the research committee.

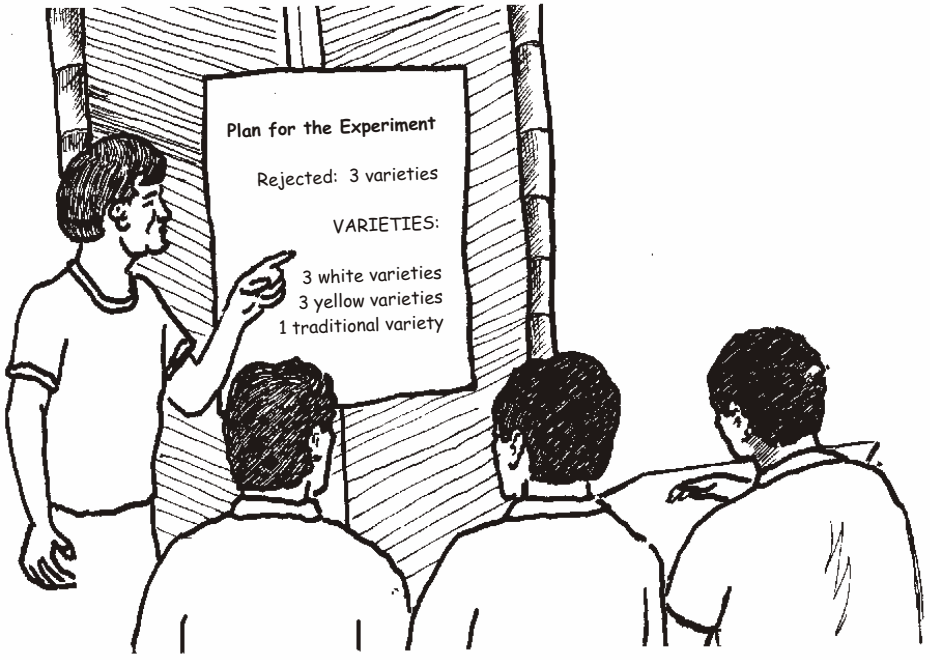
The researcher from the agricultural center
helped us get the seed of 9 new varieties of maize.

We did our first experiment.

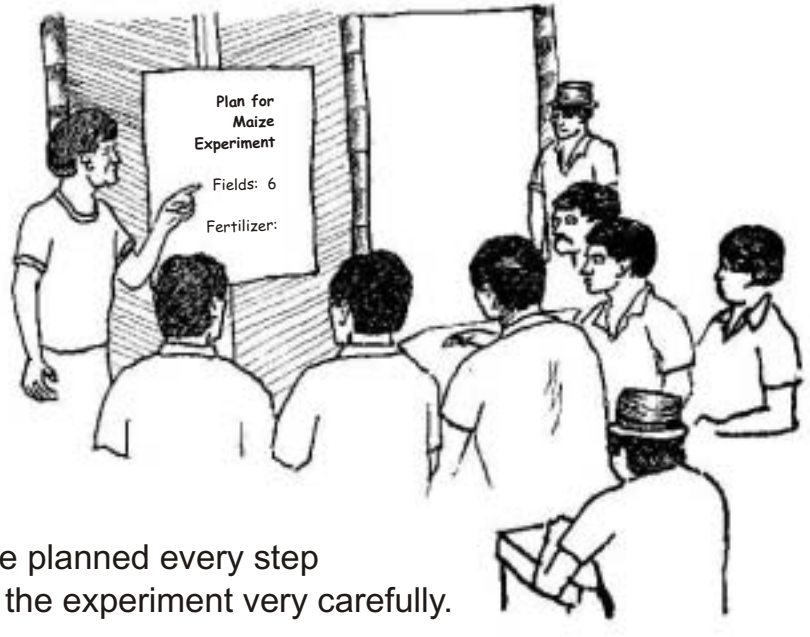
We rejected three of the varieties
because we didn't like the size, color
or shape of the grain.

Of the 6 remaining varieties, three were
yellow and 3 were white.

We designed an experiment with these
6 varieties and our traditional variety as the control.
In total our experiment had 7 varieties.



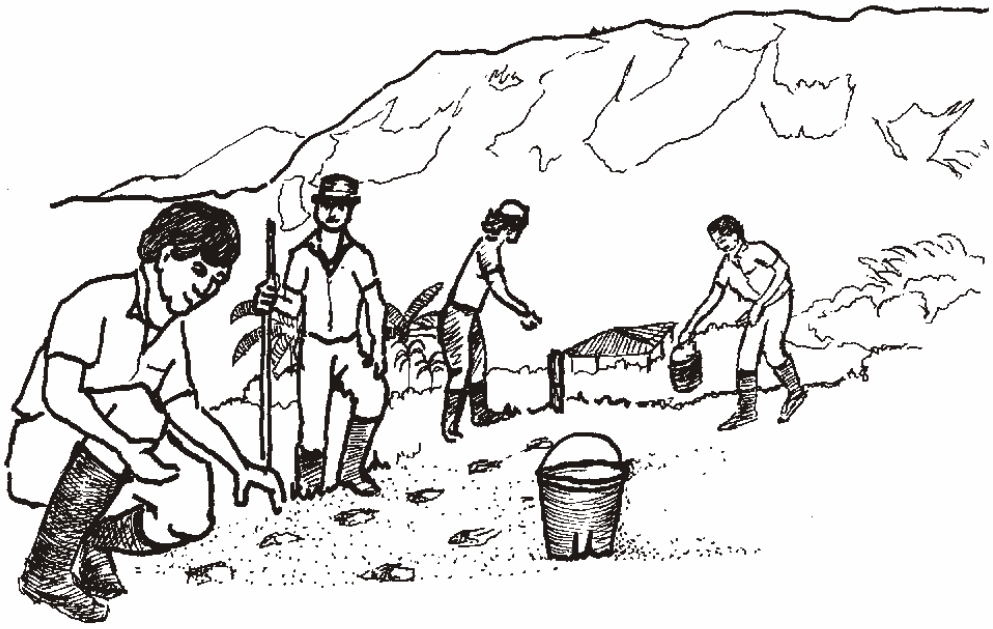
Five farmers from our village wanted
to help the 4 research committee members
with the maize variety experiment.



We planned every step
of the experiment very carefully.

How to prepare the soil...
How to fertilise,
and so on.

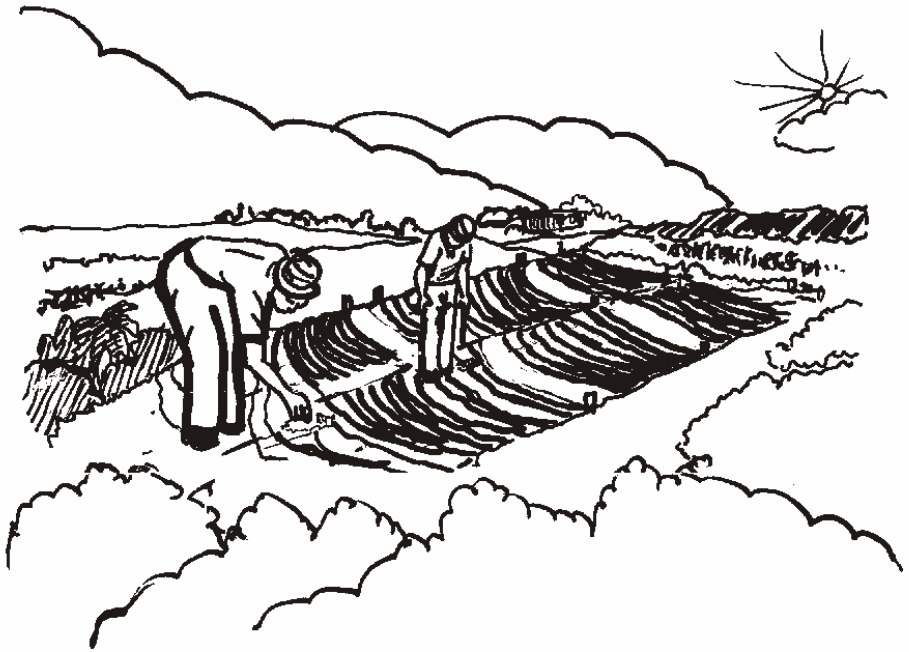
Each one of us planted two new varieties
of maize and the local control on our farms.



We planted 100 hills of maize for each variety
with three seeds in each, just as we had planned.

When we were planting the experiment
we decided to try a new way of fertilizing the maize.
We put fertiliser in each hill with the seeds on top.

Practically all the seedlings were burned by the fertilizer.
So few germinated
that we couldn't continue with the experiment.

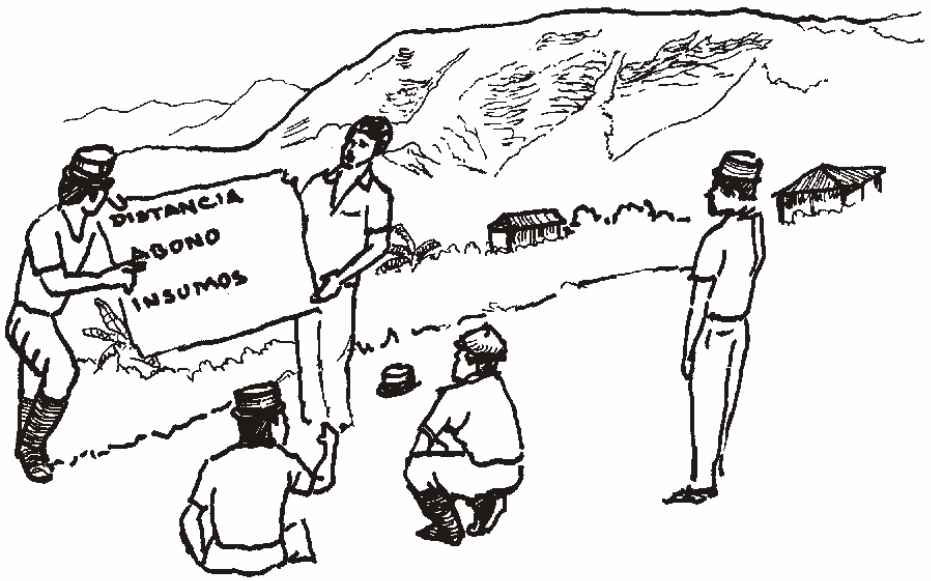


We realized that the way we applied the fertiliser
had caused the problem.

Our first experiment taught us a lot.

We learned to plan our experiment more carefully.

We learned about the planting distance.



Above all, we learned that the fertiliser
couldn't be placed in the hills with the seed
because it burned the seedlings.

A month later we decided to try again.

By this time, the rains had come,
and it was too late to plant.
Some of our plots were flooded and the seed rotted.

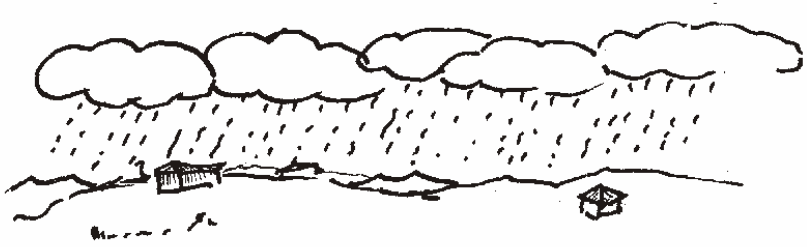
The seedlings that managed to germinate hardly grew.

We met to discuss what had happened.

We learned that some of the fields
were not suitable for growing maize.

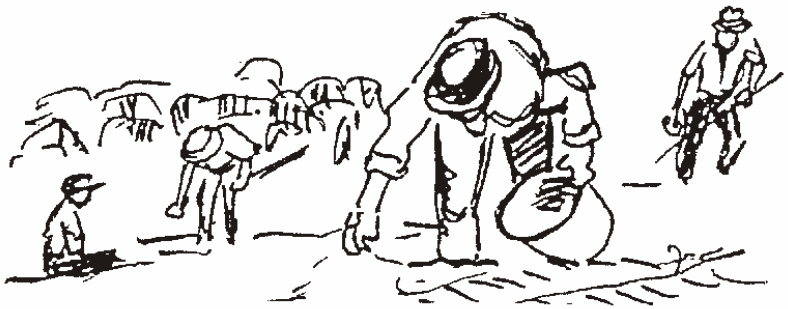
We had many hardships.
First, the disaster with the fertilizer.

Then the rains came and flooded our plots.

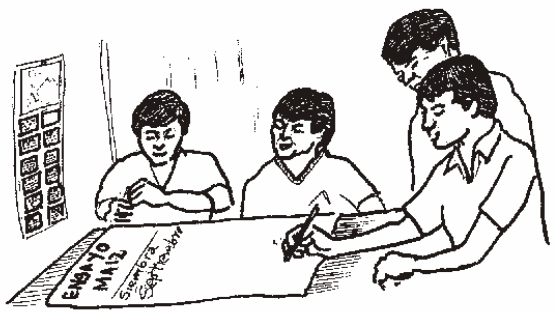


And some of the farmers
who had volunteered
to work with our Committee
hardly ever came to help us.

Despite all of our difficulties, we didn't lose heart.
Many of our neighbors encouraged us to keep trying.

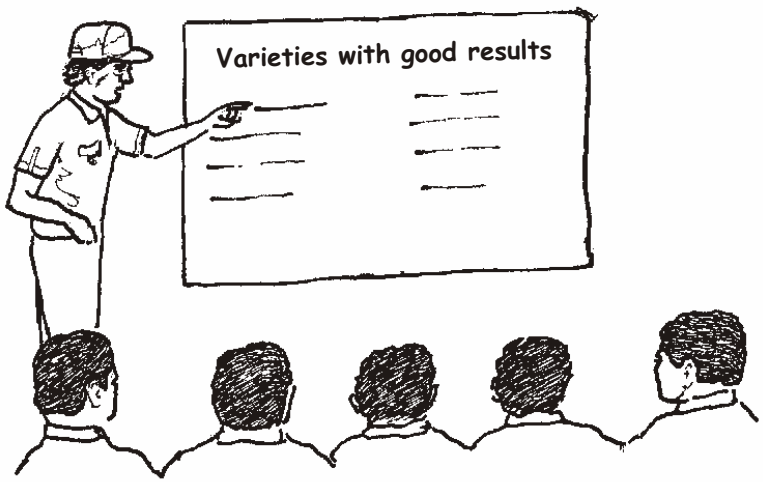


We planted the experiment again, in September.



It was a better planned experiment,
and we had gained experience from our failures.
We stuck to our plan to test new maize varieties.
This was what our village expected from us.

We put a lot of effort into planning our third experiment.
We asked the researcher from the agricultural center
to help us find information about maize varieties
that were successful in areas similar to ours.



We discarded some of the varieties
from the first two experiments and added others.

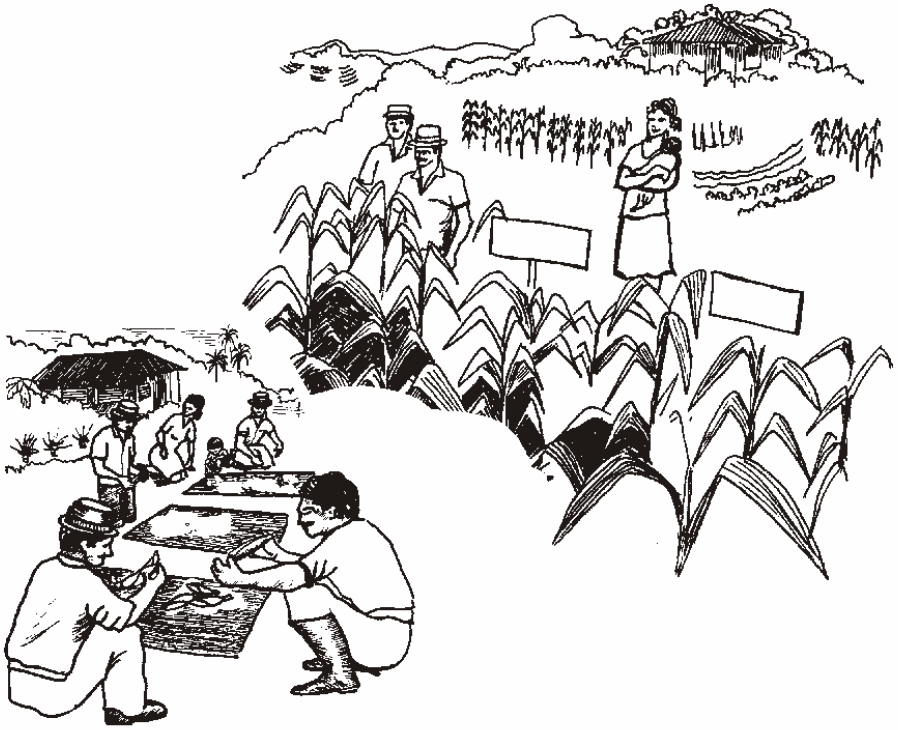
In total we tested 6 new varieties and the local control.
We thought this would give us plenty to compare.

We fertilized all the plots our usual way
20 days after planting and 20 centimeters
from the seedlings.

We planted the experiment on 6 farms.
Four of them belonged to members of the Committee.
The other two farms belonged to people
who were serious about working with us.

We planted all 6 varieties
and the control on every farm.

The seedlings germinated.
They looked good.
We evaluated the germination of every variety.
We compared the new varieties with the control.



When the ears formed we evaluated again.
We counted all the ears in each row,
and compared their size.
We noticed which varieties formed ears the fastest.

We also compared the new varieties
and the control at the harvest.

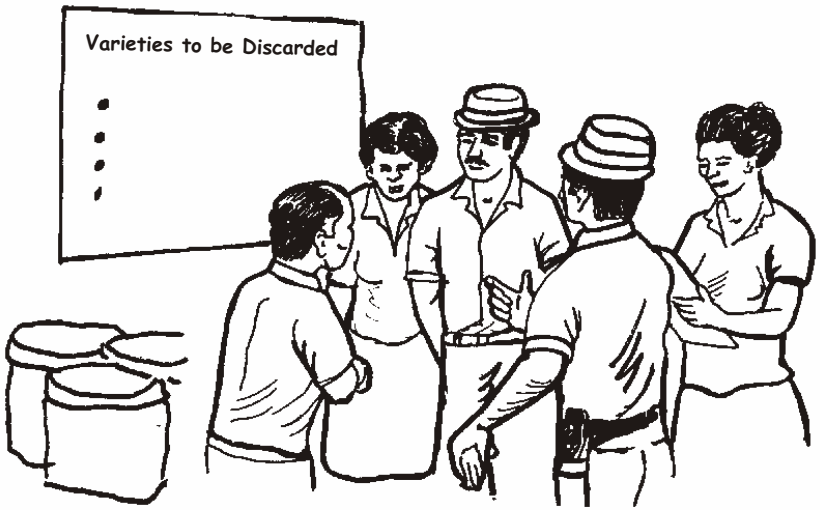
We weighed the maize produced
by each variety to see which yielded the most.

We cooked all the varieties the same way
and compared their flavour.

We wrote down all our
observations
in the Experiment Diary.

With the data from all our evaluations
at germination,
at ear formation,
at harvest

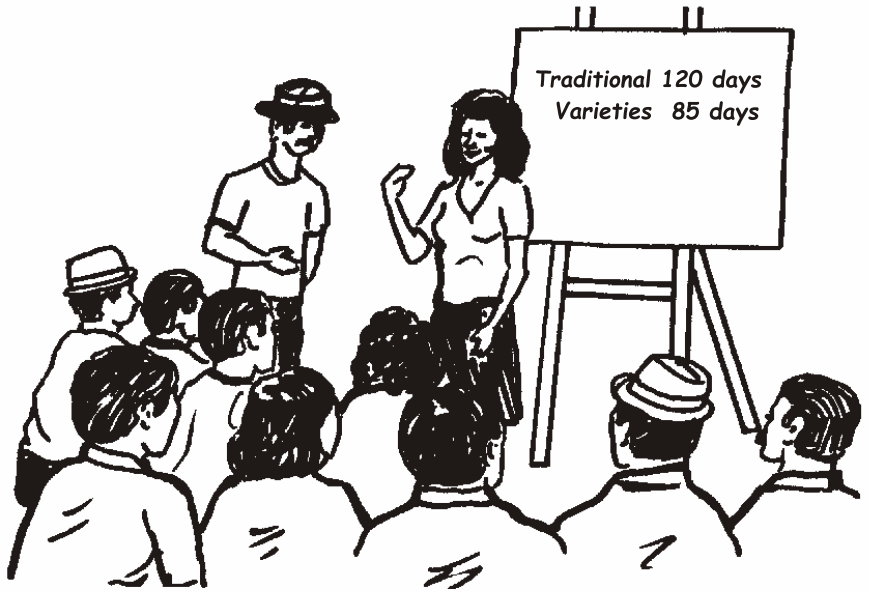
and from the kitchen we drew
our conclusions.



We decided to discard 1
of the new varieties and our local variety.

Our final comparison was very clear!

Our traditional variety had to be harvested
at 120 days.
Five of the 6 new varieties could be harvested
at 85 days.



What a huge difference!

After the evaluation we sold the harvest.

Before planting the experiment we had agreed
that a third of our profits would go
to the committee's fund to cover the losses
from the first experiment.
We divided the remainder among the farmers
who had participated in the experiment.

The community supported our decision.

Some of our plots were located along the road.

Many people who passed them were curious
about what we were doing.
We explained the experiment to them and soon
word got around about our very nice looking maize fields.

Some farmers wanted to buy seed.
It was impossible. When we planted again we mixed
the seed of the white and yellow maize in the rows.

But producing seed and selling it
to other farmers seemed
like a good idea.

We realized that this would be a way
of strengthening our research committee
by making money available
for more experiments.

But first we wanted to be sure
that selling seed of the new varieties
would be profitable.

We also wanted to know how many people in the village
were interested in buying seed from us.

We had many things to learn.

When was the best time to plant the new maize varieties?
How many seeds should be planted?
How important was maize in our area?

The researcher from the agricultural center
helped us design a form for collecting information
from the people in our Community.
He helped us do a survey.

Each member of the Committee talked to 5 farmers.
We visited 20 people in total.
All of them were interested.

So now we're doing another experiment.
We're comparing the 5 varieties that gave
such good results in our third experiment.

All six seem good but we want to chose
the 4 best varieties for producing commercial
maize seed for our community.

We're also looking for training
on how to produce maize seed.

Other farmer research committees have come to see our experiments and we've made visits to see their work. These visits are a good way to learn new things and help us avoid and correct mistakes.

We learned a lot from the Pescador Committee. They're experimenting with beans.

We used to grow beans in El Diviso.

Since visiting Pescador we've made some changes. Other farmers in our village are also changing. And we've learned that farmers in other villages want to buy our maize seed.

We're also planning some new projects.
We want to experiment with peanuts
and the women in the village are working
with our committee.

Our farming research can involve everyone.

Everybody in El Diviso understands
what research means.

By experimenting, we learn
many useful things.

We feel sure of what we've learned
and want to continue.

Experimenting benefits individuals, the Committee
and the whole community.

Research means walking along a new path,
and knowing where you're going.