



MICROFILMADO

EXPERIENCES IN LA COLORADA*

R O Díaz D **

INTRODUCTION CENTRO DE DOCUMENTACION

This report presents some fact about the methodology and content of our cassava production technology, for the period 1977 and 1978, for the two primary sectors involved. The first is the sector that validates new technology, that is, the personnel of the Economics Section of CIAT's Cassava Program, the second, the sector that receives the new technology, the farmers of the community of Media Lura who have established cassava crops on La Colorada property.

RESULTS AND DISCUSSION

Point of References

The point of reference utilized initially to detect the level of interest of the farmer to know about a new technique was to evaluate the types of information available to him and their consequences.

1 National Agencies

Representatives of these only visited La Colorada to conduct surveys and prepare reports without presenting any solution to the farmer's problems.

- THE FARMER DOES NOT LIKE BEING QUESTIONED

2 Friend and Neighbors

Normally, farmers only interchange ideas with their families or other

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very close friends

- THE FARMER IS SHY AND ON OCCASIONS INDIVIDUALISTIC

3 Salesmen and businessmen

Because of their nature as marginal producers, farmers have not been called upon by salesmen of agri-chemical products who could show them that these products are able to improve their agronomic practices

Businessmen are only interested in obtaining a high profit from buying and selling the products from the property

- THE FARMER IS CONSCIOUS OF HIS TECHNICAL MARGINALITY

4 Mass media

Farmers have little access to magazines or other periodicals with agricultural themes. The large majority of them cannot read. Radio programs have very general themes

- THE FARMER IS CONSCIOUS OF HIS SOCIAL MARGINALITY

Based on this initial information, it can be concluded that the interest level would be minimum when initiating the process of validation of new technology

EXPERIENCES OF THE PROCESS

Socio-cultural experiences

During the first year of the project, a young farmer was trained in order to serve as a link for the transference of technology to the rest of his farmer group. After being trained, he left the community to work in a larger city

- SEVERAL LOCAL PROMOTERS SHOULD BE PREPARED AS ASSISTANTS FOR THE DISSEMINATION OF NEW TECHNOLOGY

The initial contact was made with a 50-year-old farmer, a leader of the farmer sector, and work was always done with the same farmer

With time this man became a problem for the following reasons

- He was considered the best in the community although another farmer was capable of working with cassava
- He became a social, political and economic leader up to the point that local politicians sought him out and offered him gifts to obtain votes
- He did not want to delegate He is the person who appropriated the cassava packing sacks when these were sold by the industrial sector, making about two trips weekly and acquiring 2400 per week Other farmer found it difficult to get packing sacks
- He did not want to provide technical personnel of the cassava project with details of his earnings from marketing cassava to the industrial sector
- CONTACTS FOR TECHNICAL TRIALS WITH CASSAVA CROPS OUGHT TO BE ESTABLISHED WITH FARMERS EACH YEAR

Using the term -to poison the seed- meaning to treat the seed against pests created confusion among the farmers Some associated the term with the possibility that the harvested cassava would be poisoned

- THE LANGUAGE OF THE COMMUNITY MUST BE UNDERSTOOD AND APPLIED

Farmers selected to participate in the trials, as well as those not selected, did not exchange ideas about the introduced technology None visited their neighbors' fields to observe the behavior of the promising varieties that were planted

- PERIODIC MEETINGS OF THE GROUP OUGHT TO BE HELD SO THAT THE NEW TECHNOLOGY CAN BE PERMANENTLY EVALUATED

Some farmers became discontented because they could not harvest cassava from the plots to feed their families and had to wait for 11 months before the harvest. The local custom is to begin to harvest after 7 months for family consumption and from 8 months on for commercial sales.

- STUDY DESIGNS OUGHT TO BE ADJUSTED TO THE LOCAL CUSTOMS OF PRODUCTION AND CONSUMPTION

Some farmers were not in agreement with applying fertilizers as they did not think the soil needed them. Other commented that the application of chemical products for treating the seed would bring about as a consequence, necrotic spots on the roots, a symptom later reported on the property.

- IN ADDITION TO DEMONSTRATIONS TO SHOW THE ADVANTAGES OF NEW TECHNOLOGY, IT IS NECESSARY TO PROVIDE EDUCATION SO THAT FARMERS UNDERSTAND THE SIGNIFICANCE OF THE TECHNOLOGY

Under the characteristic of the initial design of the experiment, 30% of the farmers received economic help to cover part of the costs of preparing the soil, seeding and weed control. The rest of the farmers protested strongly for not having received any such help.

- FARMERS SHOULD NOT BE SUBSIDIZED ECONOMICALLY

Before 1970, the cassava variety Secundina had begun to become known and now is the predominant variety in the region.

- THE PROCESS OF NATURAL ADOPTION OF NEW TECHNOLOGY IS SLIGHT

Some farmers did not participate in the project of planting in the month of September because they preferred to plant in April or May as these months provide a better guarantee for successful plantings.

- PLANTING SEASONS OUGHT TO BE ESTABLISHED IN ACCORD WITH FARMER PREFERENCES

Technical

Some farmers were not able to prepare their land because the machinery owners refused this work because plots were too small. In other instances, when two or more farmers had fields near each other, the machinery owners accepted the work because the area was large enough to work. On the other hand, proximity of the farmers would facilitate the control and management of the experiment.

- THE FARMER SAMPLE SHOULD BE AS CONCENTRATED AS POSSIBLE

Some farmers did not prepare their fields because they lacked the money. Others prepared the ground and planted, but then abandoned the crop later because they lacked money to continue.

- DIRECTED AND SUPERVISED CREDIT IS ONE IMPORTANT FACTOR IN THE PROCESS

Since 1974, the cassava variety Venezolana has spread in use and presently, about 9% of the farmers are propagating it for the following reasons:

- 1 Its good germination
- 2 Its high yields
- 3 Its high starch content
- 4 Its short growing period
- 5 Its roots of good commercial form and size

- IN ADDITION TO ITS AGRONOMIC CHARACTERISTIC, A VARIETY OUGHT TO BE HIGH YIELDING AND HAVE GOOD CHARACTERISTICS FOR THE MARKET

Market variations play an important role in influencing prices received and the possibility of selling the product is the one which in the end most interests farmers. In the last semester of 1978, surplus production of

cassava occurred in the North Coast region of Colombia. Some farmer of La Colorada related this situation to the arrival of CIAT technicians and say "Before the agronomists came, cassava could be easily sold. Now it is difficult to even sell it for industrial use"

- WHEN PRODUCTION CHARACTERISTICS ARE STUDIED, THE IMPACT THAT INCREASED PRODUCTION WOULD CAUSE IN THE MARKET OUGHT ALSO BE TAKEN INTO ACCOUNT

Economics

Some farmers, when questioned about the use of materials for treating seed replied that while this could benefit their crops, they could also use this money (\$200/ha) to eat for one day

- INGREDIENTS OF THE NEW TECHNOLOGY OUGHT TO BE OF THE VERY LEAST COST

At the time of the study in no part of the Departamento of Magdalena was it possible to obtain the insecticides and fungicides for treating planting seed

- INGREDIENTS FORMING PART OF THE NEW TECHNOLOGY OUGHT TO BE ACCESSIBLE TO FARMERS

Marginal farmers do not have available the back-pack or tractor sprayers to apply insecticides or herbicides

- TECHNICAL INPUTS THAT REQUIRE COSTLY EQUIPMENT FOR THEIR APPLICATION SHOULD NOT BE RECOMMENDED IN THE TECHNOLOGY PACKAGE

Incredible as it may seem, water is the limiting element for the application of pesticides because springs are located, in the majority of cases, at a considerable distance when the water must be moved by carrying on foot or with donkeys

- INITIALLY, THE EXISTING NATURAL RESOURCES OF THE REGION OUGHT TO BE EVALUATED
SO THAT THE NEW TECHNOLOGY CAN BE CORRECTLY ADJUSTED

IMPLICATIONS ABOUT ADOPTION

All the factors -- ecological, racial and cultural -- that make up a marginal community have to be taken into account. Based on this, any institution foreign to the community can accelerate the development process, when development is based on the internal forces of the community and its economic potential.

The conditions of climate, soils, origins and the races and their crosses, and cultural patterns, are the standards that define the behavior of the people and their attitude towards any modification of their systems of life or work.

When we are speaking of introducing new technology into an agricultural community, we must remember three important implications that ultimately are going to dictate the success or failure of the new technology: social, technical and economic.

Social implications

It is very important to consider the socio-cultural aspects of the community with the object of bringing about acceptance of the technician involved in technology transfer. In summary, the technician has to assimilate the lifestyle of the community to be able to transmit, under the same conditions, the technology he has to transfer. Once the lifestyle of the community is understood, the process of transferring the technology can be shared with the community.

Of the socio-cultural aspects, we can consider the religious, political and folkloric ones as the most interesting.

Religious beliefs ought to be respected. Planting and harvesting should not be planned during times of festivals of saints.

The technician should limit himself to only listening and not commenting on any political topic.

Part of the farmers' folklore is the belief in the influence of the moon on planting and harvesting.

Technical implications

Technical implications are of a cultural type because the technology the farmers apply has been inherited over time from predecessors. A great respect and obedience exists for this type of inheritance. For this reason, the change in attitude towards something new is only slight.

On the other hand, much of the technology that the farmer applied has been tested and adjusted over time. Thus, it becomes important to evaluate initially the traditional technology so that adjustments can be made in the new technology.

Economic implications

All technology that represents an increase in income for the same costs will have immediate acceptance.

Based on this, a new promising variety will be the cheapest input because the cost of producing it is covered by research institutions.

The modification of cultural practices is feasible, when it is not imposed on the part of the technician. The entire process ought to be demonstrated and taught in the form of suggestions.