

## Organic OPV (Open Pollinated Variety) Corn Seed Production

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### Abstract

This study was conducted in three (3) experiment stations and two (2) research centres in Region 2, Cagayan Valley, Philippines where some of their municipalities covered includes corn as their staple food. The experiment stations and research centers are the, Nueva Vizcaya Experiment Station, Quirino Experiment Station, Batanes Experiment Station, Southern Cagayan Research Center and Cagayan Valley Research Center. The project aims to promote the production and utilization of OPV corn seeds using organic technologies for healthy living. Seed used are purified to remove all traces of chemical contaminants. IES Glut #4, Flint IES 8906 and IES Yellow CN5 are the OPV corn seed use in the project. Natural farming inputs and organic fertilizer were used during the whole stages of plant growing. As part of the promotion, a field day was conducted to demonstrate the organic technologies used for the crops and at the same time promotion of organic agriculture in the region. It was attended by students, farmers, businessmen and other stakeholders from the region and from other regions in the country.

**Keywords** : production, promotion and utilization, conservation, organic corn.

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## Introduction

White corn, this has been a staple food in some municipalities of Region 02 or the Cagayan Valley and also in other regions of the country. It has been an alternate source of carbohydrates for many corn farmers and their families. Their way of production has always been using Open Pollinated varieties (OPV) and improved Open Pollinated Varieties; and small amount of in-organic fertilizer; and also with the used of insecticide.

As the years goes by, trend have been change and farmers growing corn said that green corn and processed OPV corn that are organically produced is more expensive than conventionally produced. Its environmental impact is priceless because the adaptation of Organic Agriculture Technologies can repair the damage made by using in-organic fertilizer and other chemicals by using organic fertilizer in long term. Thus, it has greater impact to good health of the consumers and in the environment.

There is no source of these certified organically produced OPV White and Yellow corn seeds. This phenomenon also happens in several countries (Niggli, 2002, Wolf, 2002, and Gaile, 2005). This mainly because seed industry focuses its attention to the conventional agriculture. It is in this context that the scarcity of organically OPV white and yellow corn seeds should be addressed. So with the Department of Agriculture Regional Field Office No. 02 has embarked in the landmark activity of starting to produced purified/organic OPV white and yellow corn seeds and it has reached its three conversion period. This will be made available to the farmers who wish to go into producing organic OPV white and yellow corn production for green corn, baby corn, and processed corn for food and feeds.

Continuous supply of organic OPV white and yellow corn seeds for organic practitioners and private seeds producers is our main goal and were moving forward in support to Republic Act No. 10068 or the Philippine Organic Agriculture Act of 2010 for healthy living.

## Materials and Methods

OPV corn seeds variety of Glutinous IES #4, Flint 8906 and IES Yellow CN5 that produced locally by one of the research station of the region were purified from conventionally grown to organically grown. This was conducted in the three Experiment Stations and Two Research Stations in Region 02. for three years. Production areas were also converted into organic using organic fertilizers, and natural farming inputs. Pests were controlled by concoctions of botanical pesticide, earwig and Trichogramma.

Within that period selection for good quality corn seed was produced. The produced corn seed will past through a series of post-harvest operation and selection process prior for distribution.

Conduction of corn farmer's forum on organic agriculture and field day was organized where farmers, students, teachers, businessman and other stakeholders from the region and other regions of the country were invited to attend. Technical briefing on the technologies used in the production of the OPV corn was demonstrated. Seed distribution will be soon followed after the event. Monitoring of the distributed seed were also conducted to insure that the seeds were grown organically and assisted technically and linked to the market.

## Results and Discussion

Production of organic OPV corn seed to be distribution to farmers and local seed producer's for food and feeds should be sustained to address the needs of the growing demand. To address that the five stations of Department of Agriculture Regional Field Office no. 02 will maintained a seed production to cater the needs of the farmers.

Promotion of organic corn for food and feed showcasing different technologies on the production of organic corn seeds will be continuous and promotion on the health benefits derived from eating organic corn and other process product will also be the key for the full commercialization of Organic OPV corn production. Seed that have been organically produced would be maintained organically to conserve its purity.

## Conclusion

Producing of organic OPV corn seed for farmers and local seed producer's for food and feeds is the missing linked in producing organic corn in the market. Showcasing technologies on how to grow organic corn and continuous promotion on the health benefits derived from eating organic corn and other process product will also be the key for the full commercialization of organic OPV corn production. Teaching farmers how to produce and storage their own seed will be the key for the sustainable seeds to our farmers.

## Acknowledgements

The authors thanks Hon. Proceso J. Alcala, Secretary of the Department of

Agriculture, Philippines and Director Lucrecio R. Alviar, Jr. CESO III, Regional Executive Director, Department of Agriculture – Regional Field Office No. 02, Tuguegarao City, Philippines for approving and funding the project. Likewise to Regional Technical Director Orlando J. Lorenzana who gives the idea to the conceptualization of the project. Mr. Robert B. Olinares, Chief of the Research Division Department of Agriculture – Regional Field Office No. 02, Philippines for the endless support and encouragement. The Staff of Organic Agriculture Program Region 02 for all the support during the project proposal preparation and presentation. The Nueva Vizcaya Experiment Station Staffs for all the support during the project implementation.

## References

- Gaile. Z. 2005. Environmental Friendly Food Production System: Requirements for Plant Breeding and Seed Production. Accessed 20 July 2015. Available <http://orgprints.org/5707/1/EnvirfoodReportOrgSeedProd.pdf>
- Niggli. U. 2002. Towards New Socia-Economically Integrated Solutions for Plant Breeding. . In: Proceedings of ECO-PB 1st International symposium on organic seed production and plant breeding. 31 – 22 November 2002. Berlin. European Consortium of Organic Plant Breeding.
- Wolfe, M. S. 2002. Plant Breeding, Ecology and Modern Organic Agriculture. In: Proceedings of ECO-PB 1<sup>st</sup> International symposium on organic seed production and plant breeding. 31 – 22 November 2002. Berlin. European Consortium of Organic Plant Breeding.