

P4P Purchase for Progress Central America

Talk of the Month: Grain Quality

Quality management and food safety are fundamental to consumers' health and nutrition. Thus, being able to offer high quality grain facilitates access to formal markets which pay a premium price for quality. This makes FOs more competitive, more reliable as a supplier and, consequently helps them become viable as an agricultural business. Ensuring that the quality standards demanded by formal markets are met requires the use of good agricultural practices, appropriate post-harvest management and good storage and warehousing practices.

General WFP Food Quality Requirements

- ◆ Moisture content: 14% maximum
- ◆ Avoid overheating
- ◆ Foreign matter – 1.5% maximum
- ◆ Broken kernels and defective grain - 3% maximum
- ◆ Aflatoxin (for maize) - 20ppb maximum

P4P's focus is to enable smallholder farmers' organizations to meet WFP's quality specifications. As part of the process, P4P supports smallholder farmers to improve post-harvest handling, organizes trainings on quality control, drying and storage techniques, and facilitates access to equipment and infrastructure necessary to guarantee grain quality.

This month's bulletin focuses on **QUALITY** highlighting:

- 1 The development of farmers' capacities in quality management;
- 2 Tools and equipment provided to ensure high quality products;
- 3 Steps to achieve effective quality control.

"There are no secrets to preparing beans to WFP quality levels demands. It requires greater economic efforts and labour-intensive. A new challenge lies in the processing of grains." Raul Contreras, President of the 'Asociación de Productores Agrícolas de la Laguna del Hoyo', Guatemala

The supplying of equipment and tools, combined with a training programme, enabled FOs to deliver commodities that comply with quality standards. Undoubtedly, farmers were hesitant about changing their production techniques mainly because of cultural factors. Moreover, farmers were uncertain whether they would be able to recover the additional cost involved in delivering high quality grain, particularly given regular climate shocks in the region which can have a devastating impact on crops.



**Our
Countries**

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**P4P
Voices**

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"We already knew what we had to do. We were already harvesting, cleaning and sorting the maize manually, and we were selling it through the cooperative ... but we needed to be trained to improve our sorting techniques, we didn't really know how to produce, process and stock grains, guaranteeing quality standards. We have acquired this knowledge with P4P and now we are in better condition to continue developing this capacity."

Juana Cabrera,
Asociación de Desarrollo Comunal de
Agricultores de San Lorenzo (AGRISAL)
El Salvador



WFP/Elizabeth Sagastume

Capacity Development & Partnerships

Relying on the expertise and experience of WFP and its partners, P4P established an extensive training program that promotes best practices in quality management, helping FOs and smallholder farmers achieve the quality required to commercialize their grain in the formal market.

Quality management has to be part of the entire production process, from farm to warehouse. The programme specifically includes training on quality analysis and control techniques as well as training in quality management related areas including soil analysis, best agricultural practices, integrated pest management or post-harvest handling.

In **El Salvador**, P4P works with CENPOSCO, CENTA and FAO providing training on grain quality analysis, storage, post-harvest handling techniques and use of quality control equipment. Karla Trujillo, chairman of The Garucho FO, explains that thanks to this training she identified a 14-quintal truck of maize that did not meet the required quality standards. A subsequent moisture measurement analysis confirmed Karla's assessment. Her knowledge in quality standards earned her the trust and respect of the other members of the cooperative to the point of being elected president of the cooperative.



In **Guatemala**, MASECA, IICA, DISAGRO and INDECA train FOs and promoters in post-harvest handling and processing as well as quality control.

In **Honduras**, PROMECON, DICTA, INFOP are among the key partners working with FOs to train them to improved quality measurement.



In **Nicaragua**, FOs are trained on the use and maintenance of Grain Pro Cocoons storage systems that preserve the quality of the product without requiring any chemical pest control. P4P partners such as INTA, IICA, FAO, MAGFOR, UCA and LABAL also provide training to FOs and agricultural promoters on quality analysis and handling.

Quality Control Tools & Equipment

To be able to supply high quality maize and beans, farmers' organizations and producer require not only **quality inputs** to improve the quality of their crops, but also access to **good storage facilities, post-harvest processing equipment** (drying, cleaning and sorting equipment), **specific tools for grain quality analysis** (moisture meters, sieves, weighing scale and chemicals). Various tools for grain quality monitoring are used according to the needs of FOs.

P4P supports the FOs to improve grain storage and preserve the quality of the grain, to make sure they are able to meet the quality required for commercialization. Among some examples of this investment is, in **Nicaragua**, and **El Salvador**, P4P's participation in the establishment of drying patios or huts, providing building materials for these simple structures. Despite their simplicity, these drying facilities accelerate the drying process, reducing the risk of mould production or rotting. Through P4P, farmers are also able to obtain Grain Pro hermetic bags (known as Cocoons) and silos for adequate storage which reduces the risk of infestation. In **Honduras**, P4P supported the FOs to invest in 23 shellers, 5 drying machines, thus allowing them to reach a drying capacity of 2,700 qq per cycle. Sorting equipment and silos were also provided. By helping reducing losses from infestation and rotting, P4P contributes to guarantee high quality of grain and therefore higher incomes for farmers.

P4P in **Guatemala** developed an innovative kit, known as the Blue Box, to analyse grain quality at the farm level. It enables preselecting grain according to their quality, saving farmers from incurring transport and other transaction costs if their crop does not meet requirements. The Blue Box is composed of an aflatoxin test kit, a probe for sampling, a digital scale, a voltage converter, moisture meter, a mill, a digital clock, sieves to determine grain size, identify impurities and establish the cause of damage. This kit can be used by WFP staff, farmers, food processors and other food chain stakeholders, once they have been trained on its use. The Blue Box is a very significant achievement of P4P. According to Eleni Pantiori, WFP Food Technologist, "the Blue Box came out of P4P Guatemala, but we have now taken the concept, expanded it and adjusted the contents and standards for users in Africa. Although still at the 'spring' of its implementation in Africa, the developing needs for quality assessment and the toolbox flexibility may lead the Blue Box also to other geographic regions." With the "Blue Box", WFP staff and implementing partners can conduct basic quality testing on different types of commodities. It does not replace WFP's mandatory quality testing by independent inspectors, but is a very valuable precautionary tool when checking stored commodities or other food purchases for WFP's operations.

Thanks to P4P capacity building efforts, smallholders are now able to choose the right buyer according to the quality of their products.

ON THE PATH TO QUALITY



Soil testing, quality inputs and good agricultural practices (integrated pest management)

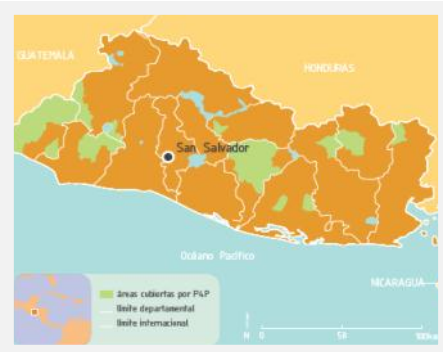
Grain cleaning on farm: broken kernels and foreign matters are eliminated

Phytosanitary control of trucks

Quality control in the warehouse: moisture, Aflatoxins, fumigation & pest control

Phytosanitary control of the trucks when moving to WFP

EL SALVADOR

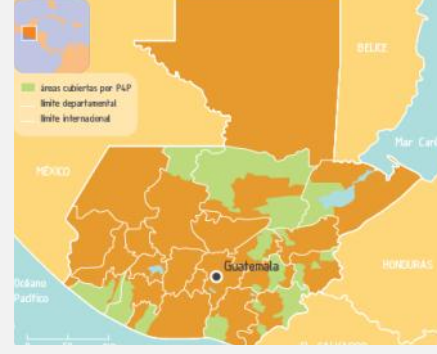


FOs	18
PRODUCERS	4,706
% WOMEN	40
CONTRACTED (MT)	3,743
TOTAL VALUE (\$)	1.6 mil
TRAININGS	953
PARTICIPANTS	9,692
PARTNERSHIPS	17

- ◆ 151 participants from 14 FOs attended in training sessions on post-harvest handling, organizational strengthening and elaboration of business plans .
- ◆ Agreement with representatives of MAG - PREMODER (Central Region) to coordinate and complement efforts on the provision of technical and financial support to the ACAASS farmers' organization.
- ◆ Meeting with the manager of Legal Office in the Department of Agricultural Associations of MAG, to discuss how to strengthen FOs legal capacity and provide legal tools to resolve conflicts .

Key Partners: Howard G. Buffett Foundation, DISAGRO & FERTICA, El Salvador Chamber of Commerce, FAO, Ministry of Agriculture and Livestock, the National Center for Agriculture and Forestry Technology (CENTA), PREMODER & PRODEMORO (IFAD-financed rural development programs), CARITAS Foundation, UNDP, World Vision.

GUATEMALA



FOs	68
PRODUCERS	9,952
% WOMEN	53
CONTRACTED (MT)	17,023
TOTAL VALUE (\$)	7,7 mil
TRAININGS	501
PARTICIPANTS	29,032
PARTNERSHIPS	44

- ◆ BANRURAL/WFP workshop on credit with 10 FOs (HGBF).
- ◆ Coordination with FAO to review of Ministry of Agriculture Gender Policy
- ◆ Exploratory meetings with the new government: Vice Minister for Rural Economic Development of Ministry of Agriculture
- ◆ 95 women and men producers trained on warehouse management and pest control by WFP logistics specialist (Canada)

Key Partners: Howard G. Buffett Foundation, Canadian International Development Agency (CIDA), BANRURAL, Catholic Relief Services (CRS), DISAGRO, FAO, Inter-American Institute for Agricultural Cooperation (IICA), International Maize & Wheat Improvement Center (CIMMYT), Ministry of Agriculture (MAGA), National Institute for Agricultural Commercialization (INDECA), Institute for Agricultural Science and Technology (ICTA).

HONDURAS



FOs	23
PRODUCERS	11,365
% WOMEN	23
CONTRACTED (MT)	17,552
TOTAL VALUE (\$)	11.1 mil
TRAININGS	711
PARTICIPANTS	29,415
PARTNERSHIPS	28

- ◆ Launch of the Experimentation Centre of Agricultural Development (CEDA) with the President of the Republic, Mr. Porfirio Lobo, the Minister of Agriculture Jacobo Regalado and WFP Country Director Miguel Barreto
- ◆ Meeting with representatives of "Instituto Nacional Agrícola" (INA) representatives
- ◆ Presentation of P4P to the President Mr. Porfirio Lobo and its Cabinet (17 January)

Key Partners: EUFF, Howard G. Buffett Foundation, CHOOPACYL Credit & Savings Cooperative, CRS, FAO, Government of Honduras, IICA, IFAD/PROMECON, INA, Ministry of Agriculture, National Agricultural Development Bank (BANADESA), DICTA, National Institute for Professional Formation, Prolancho Foundation, SAN Coalition Network, UN Women, FAO, SAN Red Coalición.

NICARAGUA



FOs	11
PRODUCERS	2,100
% WOMEN	30
CONTRACTED (MT)	2,407
TOTAL VALUE (\$)	920.000
TRAININGS	784
PARTICIPANTS	13,050
PARTNERSHIPS	12

- ◆ Preparation of agreement with Red Sicta IICA to join efforts in reducing post-harvest losses
- ◆ Delivery of Cocoons to farmers and FOs, 3,000 super bags for red bean seeds storage and 50 shellers. Drying patios and huts were facilitated to FOs.
- ◆ Joint WFP-LAFISE training session on commercialization to FOs.
- ◆ Meeting held with the School of Agricultural Economics (UNAN-ESECA) and WFP to establish a cooperation agreement

Key Partners: Howard G. Buffett Foundation, FAO, Food Technology Laboratory (LABAL), IICA, International Regional Organization for Animal and Plant Health (OIRSA), Ministry of Agriculture, Nicaraguan Institute for Agricultural Technology (INTA), Root Capital, UCA.



Asael Eliu Blandon López, La Unión FO, Wiwilí, Nicaragua

This month, we interviewed Asael Eliu Blandon Lopez, a technician who works in La Union Cooperative, in Wiwili, Nicaragua. Eliu participated in WFP-INTA joint training sessions on quality management. Now, he is sharing his knowledge with smallholders' farmers, teaching them how to optimize production methods to ensure food safety and grain quality. Eliu tells us how quality can be monitored on the field, what are the benefits of improving grains quality, but also underlines some of the challenges.

How do you describe high quality grain?

A quality grain is a grain that preserves all its physical characteristics (size, flavor, shape, color...) as well as its nutritional and protein value. It is a grain that enables people to have a healthier diet.

Why do you think it is important to produce high quality grains?

A quality grain is nutritious for the consumers, who are mainly the farmers themselves. So it contributes to strengthen the food and nutritional security of the population. Also, when offering quality, the smallholders are better positioned to access the formal market and negotiate a higher price for their crops.

Did you receive training on quality management? What did you learn?

Yes, I did participate in training sessions provided by P4P and INTA. They were actually really useful as I learnt to consider quality management in a more integral way. I was used to think that quality had to be monitored once the commodities were in the warehouses. Now, I know that quality is a process starting in the farm. There are plenty of techniques and tools that can help the farmers all along the production process.

What are the techniques and tools that are being used in the cooperative to obtain the quality standards demanded by the formal market, including buyers such as WFP?

Techniques are different when the grains are still in the farm or already in the warehouse. In the farm, the producer has to be aware that he has a crucial role in ensuring quality. In the trainings we have learnt that to minimize crop damage we can harvest earlier as it considerably decreases grain exposure to plagues and fungus. The drying boxes, provided by INTA, allow the producers to preserve harvested grains in places where the air is circulating and where infestation can be controlled. We are also using a manual sheller and Cocoons to stock grains without the use of chemicals, thus conserving quality. In the warehouses, we are using sorting machines and metallic silos for improved conservation. When fumigating, we use cars to protect the grains. Finally, we regularly hired staff to measure moisture content.

What are the main changes you noticed since farmers started to produce quality grains?

The most important change is that we now have nutritious food. Also, there are more and more commercialization opportunities. Nonetheless, producing according to higher quality standards is a real investment for smallholders, especially in terms of infrastructure. One of the biggest challenges is to recognize this quality requirement by leveraging prices accordingly.

P4P CENTRAL AMERICA	
BENEFICIARIES	
FARMERS' ORGANIZATIONS	120
PARTICIPATING PRODUCERS	28,123
% WOMEN	37
P4P PURCHASES	
TOTAL CONTRACTED (MT)	40,725
TOTAL VALUE (US\$)	21.3 mil
% OF TOTAL PURCHASES	29.7
TOTAL COST SAVINGS FOR WFP	2,318,310
CAPACITY DEVELOPMENT	
PRODUCTION TECHNIQUES & INPUTS	1,106
POST-HARVEST MANAGEMENT	718
COMMERCIALIZATION	114
FINANCIAL MANAGEMENT	274
FO ADMINISTRATION	549
GENDER	78
OTHER	110
TOTAL	2,949
TOTAL PARTICIPANTS	81,189
PARTNERS	
GOVERNMENT INSTITUTIONS	41
UN AGENCIES	6
PRIVATE SECTOR	8
NGOS	36
OTHER	10
TOTAL	101

Month Ahead

- ♦ **Guatemala:** Visit of the Canada Ambassador to P4P project funded by Canada
- ♦ **Honduras:** Inauguration of the first of five EU-funded WFP/P4P grain processing centers in Honduras (Dept. of Olancho) by the President of the Republic of Honduras, with the Ministry of Agriculture and Representatives from the European Union and WFP
- ♦ **Panama:** P4P Coordinators Meeting
- ♦ **Kenya:** Global Meeting for analysis of the P4P M&E results
- ♦ **Italia:** Global Meeting on the use of forward contracts in P4P context



CONTACT US

REGIONAL BUREAU FOR CENTRAL AMERICA

P4P Regional Programme Advisor
 Laura Melo,
laura.melo@wfp.org

P4P COUNTRY COORDINATORS

EL SALVADOR
 Hebert Lopez,
hebert.lopez@wfp.org

GUATEMALA
 Sheryl Schneider,
sheryl.schneider@wfp.org

HONDURAS
 Nacer Benalleg,
nacer.benalleg@wfp.org

NICARAGUA
 Francisco Alvarado,
francisco.alvarado@wfp.org



P4P Purchase for Progress
World Food Programme
 Vicente Bonilla Street Edif. 124-125
 Ciudad del Saber, Clayton, Rep. of Panama
wfp.org/purchase-progress