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GOOD AGRICULTURAL PRACTICE - GLOBALGAP

POMEGRANATE FARMS UPGRADE TO MEET GLOBALGAP
STANDARDS

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GOOD AGRICULTURAL PRACTICE - GLOBALGAP

**POMEGRANATE FARMS UPGRADE TO MEET
GLOBALGAP STANDARDS**

USAID JORDAN ECONOMIC DEVELOPMENT PROGRAM

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AUTHOR: FUTOUN M. A. RAMADAN/TO EXCEL

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TO MEET THOSE OF TARGETED EXPORT MARKETS

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CONTENTS

CONTENTS	II
EXECUTIVE SUMMARY	1
IMPLEMENTATION REQUIREMENTS	2
- Selecting Eligible Farms:.....	2
- Preparing a work plan:	2
- Conducting an Awareness Session on GLOBALGAP:	2
- Conducting Gap Analysis Assessments:	2
- Conducting Risk Assessments:	2
- Developing Action Plans:	3
- Conducting the GLOBALGAP Standards Training:	3
Internal Audit and Internal Inspection:	5
- Developing the Manuals, Procedures, Forms, and Checklists Required to Cover the GLOBALGAP Standards Requirements:	5
Quality Management System:	5
- Monitoring and Supervising implementation:	5
- Setting-up the Farms for the GLOBALGAP Certification:	5
ANNEXES (ATTACHED ON CD)	6
Annex 1: Selection Criteria	6
Annex 2: Questionnaires.....	6
Annex 3: Work Plan	6
Annex 4: Awareness Sessions on GLOBALGAP	6
Annex 5: Risk Assessments	6
Annex 6: Action Plans	6
Annex 7: Manuals, Procedures and Forms, and Checklists Required to Cover the GLOBALGAP Standards Requirements	6
Annex 8: GLOBALGAP Standards Training	6
Annex 9: Quality Management System.....	6
Annex 10: Global GAP Certificates	6

EXECUTIVE SUMMARY

An increasing number of studies, including those from the World Health Organization (WHO), cite overuse of fertilizers and pesticides as among the chief causes of illness. Overuse of fertilizers and pesticides have grave environmental implications, which is why countries around the world are exploring ways to protect the health of their citizens while at the same time being good stewards of the environment. Global Good Agriculture Practices (GAP), known as GLOBALGAP, is a standard developed for the agriculture sector in order to ensure food security. The purpose of this project was to establish in Jordan one standard for Good Agricultural Practice by minimizing detrimental environmental impacts of farming operations, reducing the use of chemical inputs, and ensuring a responsible approach to worker health and safety with different product applications capable of fitting to the whole of global agriculture.

Over the past two years, pomegranates have emerged as a healthy fruit that is in demand around the world, as it contains higher quantities of antioxidants higher than do most other fruits. The European Union and United States markets are especially desirous of pomegranates, making them a high value fruit because of their health benefits. Given the fact that the global demand for pomegranates far exceeds the supply, the USAID Jordan Economic Development Program began work with local farmers to promote them as a high value, low water crop. The Program's activities included capacity building for farmers, marketing opportunities, and assistance in embracing value-added processes.

The Program's assistance also included technical support to a group of pomegranate farmers in order to achieve GLOBALGAP certification, which will positively affect their exports. Both individuals (option 1) and producer groups (option 2) were selected for inclusion in the GLOBALGAP certification program, receiving intensive training in order to meet certification standards. GLOBALGAP is required for agriculture exports to the European Union and North America, so achievement of this standard can potentially increase Jordanian exports significantly. Due to the Program's assistance, both the individuals and the group involved in the project achieved GLOBALGAP certification.

As part of this initiative, unemployed agricultural engineers were selected from both regions "Azraq and Jdetta" and provided intensive training in order to follow up with producers and to provide a sustainable mechanism for recertification.

The success of this initiative not only benefitted the farmers that achieved certification, but also the sector as a whole by providing a model for future achievement.

IMPLEMENTATION REQUIREMENTS

The Program's consultant initiated a number of tasks in order to achieve the anticipated results that allowed the participating farmers to institutionalize the processes required for certification. These actions included both "in the field" remedies as well as the compilation and auditing of appropriate paperwork. The following is a process map the consultant used to design and implement the GLOBALGAP certification initiative:

- SELECTING ELIGIBLE FARMS:

Selection criteria was developed to identify the farms that were eligible for GLOBALGAP compliance. Outreach was conducted to build a relationship with project participants. (Annex 1)

- PREPARING A WORK PLAN:

The work plan included the following points: (Annex 3)

- Objectives
- Activities
- Indicators
- Inputs / sources
- Timeframe
- Responsibilities
- Support efforts

- CONDUCTING AN AWARENESS SESSION ON GLOBALGAP:

More than thirty participants attended the session on the GLOBALGAP standards at which they were introduced to the benefits of becoming a GLOBALGAP certified farm, and their role in obtaining and maintaining this certificate. (Annex 4)

Questionnaires that focused on the compilation of basic information about farms were distributed to participants. Fifteen farmers completed questionnaires, which were analyzed and a selection of eligible farms completed based on the previously developed selection criteria. (Annex 2)

- CONDUCTING GAP ANALYSIS ASSESSMENTS:

Out of the fifteen potential candidates, nine were ultimately deemed suitable to join the project. The consultant conducted initial field visits to the nine participating farms in order to identify the gaps between local agricultural practices and GLOBALGAP standards.

- CONDUCTING RISK ASSESSMENTS:

Due to lack of time and resources, some of the farmers were not able to bridge the gaps between their practices and GLOBALGAP standards. However, six farms, namely those of Sami Al-Qadi, Mohammad Bani Milhem, Yousef Zuqaili, Ahmad Salman, Mohammad Bani Mufarrej, and Abed Al Hameed Kasasbeh continued to pursue GLOBALGAP compliance.

In order to develop proper control measures for both the participating individuals (1) and group (5), a list was developed to ensure compliance. The list covered the following areas: (Annex 5)

- Farm's site or location
- Farm's infrastructure
- Workers' health and hygiene
- Harvesting
- List of used pesticides
- Pollution and waste
- Prohibited and permitted residue on the crop (MRLs list)
- Residue testing and analysis
- Organic fertilizer testing and analysis
- Soil and water testing and analysis

- **DEVELOPING ACTION PLANS:**

The consultant developed an action plan for each farm that focused on bridging the gaps between current practices and GLOBALGAP standards. The project action plan was discussed with the owner of each farm, necessary modifications were made, and a timeframe for each action was set. (Annex 6)

- **CONDUCTING THE GLOBALGAP STANDARDS TRAINING:**

Training needs were identified in the gap analysis that was conducted early in the project. For example, training for workers on site preparation and/or farm mapping, record keeping, risk management, mixing and spraying operations, emergency procedures, public and personal hygiene, environmental protection, harvesting, and internal auditing was conducted. The training was conducted in two phases: theoretical training and on-the-job training. The theoretical training was provided to all six farms at once but the on-the-job training was conducted for each farm separately. (Annex 8). The courses included the following:

- Control Points and Compliance Criteria - Integrated Farm Assurance - V.3.0-2_Sep07 (Annex 8)
- Control Points and Compliance Criteria - Integrated Farm Assurance - CROPS BASE - V.3.0-3_Feb09 (Annex 8)
- Control Points and Compliance Criteria - Integrated Farm Assurance - FRUIT AND VEGETABLES - V.3.0-2_Sep07 (Annex 8)
- First Aid including:
 - ✓ Respiratory Tract Injuries
 - ✓ Electrical Shocks
 - ✓ Wounds and Bleedings
 - ✓ Burns, Musculoskeletal Injuries
 - ✓ Spine Injuries
 - ✓ Bites (Annex 8)

- Plant Protection Materials (pesticides) including:
 - ✓ The definition of pesticides
 - ✓ The Effect of pesticides on public health
 - ✓ Effect on the plant, impact on humans
 - ✓ Effect on beneficial insects
 - ✓ Effect on the soil
 - ✓ Integrated Pest Management
 - ✓ Genetic engineering
 - ✓ Chemical control
 - ✓ Ways and methods of biological control
 - ✓ Pesticide alternatives usage
 - ✓ Chemical pesticides
 - ✓ Organic pesticides (Annex 8)
- Integrated Pest Management (IPM) including:
 - ✓ Reasons to use IPM
 - ✓ Integrated pest management
 - ✓ Basic of IPM system
 - ✓ Modern trends in integrated pest management (Annex 8)
- Chemical Fertilizers including:
 - ✓ Fertilizers
 - ✓ Fertilizers importance
 - ✓ Fertilizers types
 - ✓ Chemical fertilizers and its environmental effects
 - ✓ Fertilizing through drip irrigation system
 - ✓ Importance of elements and its available sites (Annex 8)
- General Health and Hygiene including:
 - ✓ Personal hygiene
 - ✓ General health protection and self hygiene
 - ✓ Danger and first aid
 - ✓ Protection cloths and equipments
 - ✓ Worker welfare
 - ✓ General health and personal hygiene procedures (Annex 8)
- Compost Making and Soil Amendments (Annex 8)

Furthermore, Producer group "Option (2)", that are required to have Quality Management System, were given the following course:

- General Regulations – Integrated Farm Assurance V.3.2_Nov09 (Annex 8)

Internal Audit and Internal Inspection:

To ensure that farms maintain and continue to implement GLOBALGAP standards in the future, practical and theoretical trainings were provided to the six farms as follows:

- For producer group "Option (2)":
 - How to conduct internal audit on quality management system
 - How to do internal inspection according to the GLOBALGAP standards requirements
 - How to use procedures and how to use and fill forms and records (Annex 7)
- For Producer "Option (1)":
 - How to do internal inspection according to GLOBALGAP standards requirements
 - How to use procedures and how to use and fill forms and records (Annex 7)

- DEVELOPING THE MANUALS, PROCEDURES, FORMS, AND CHECKLISTS REQUIRED TO COVER THE GLOBALGAP STANDARDS REQUIREMENTS:

Two representatives from each farm were trained on the documentation requirements related to the GLOBALGAP standards in order to build their capacities to complete the necessary documentation. Documents received from those representatives were reviewed and feedback was provided through one-to-one sessions. (Annex 7)

Quality Management System:

In addition to the afore-mentioned documents, a Quality Management System was prepared according to GLOBALGAP and ISO 9001 standards for producer group, which included the following:

- Quality manual (Annex 9)
- Procedures
- Forms
- External data (Annex 7)

- MONITORING AND SUPERVISING IMPLEMENTATION:

Farms' Internal Auditors, under the consultant's supervision, conducted internal audits in order to make sure that the farms' workers were correctly implementing GLOBALGAP procedures.

- SETTING-UP THE FARMS FOR THE GLOBALGAP CERTIFICATION:

- Assisting the farms' management in filling-in and submitting the applications for the GLOBALGAP certification
- Assisting the farms' management in taking the necessary actions on non-conformities identified by the Assessment Team

ANNEXES (ATTACHED ON CD)

Annex 1: Selection Criteria

Annex 2: Questionnaires

Annex 3: Work Plan

Annex 4: Awareness Sessions on GLOBALGAP

Annex 5: Risk Assessments

Annex 6: Action Plans

**Annex 7: Manuals, Procedures and Forms, and Checklists Required to Cover
the GLOBALGAP Standards Requirements**

Annex 8: GLOBALGAP Standards Training

Annex 9: Quality Management System

Annex 10: Global GAP Certificates

USAID Jordan Economic Development Program
Salem Center, Sequleyah Street
Al Rabieh, Amman
Phone: +962 6 550 3050
Fax: +962 6 550 3069
Web address: <http://www.sabeg-jordan.org>