**CNFA-AMD Project**

**US-Pakistan Partnership for Agricultural Market Development**

**SCOPE OF WORK**

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| Project Name | CNFA-AMD/ Project Number AID-391-C-15-00003 |
| Consultancy Assignment | Practical Guidance on Pre-harvest Management of Seedless Watermelon |
| Consultant Title | Seedless Watermelon Production Specialist |
| Reports to | COP and Chief Technical Advisor – AMD |
| Place of Performance | Lahore, Pakistan with likely travel to Faisalabad, and Karachi to visit producers, packers and exporters. |
| LOE: | 23 working days (including travel days) |
| Estimated Period of Performance | November-December 2017 |

**Project Description:**

The U.S.-Pakistan Partnership for Agricultural Market Development (AMD) activity in Pakistan is a USAID funded activity implemented by CNFA with the goal of supporting the development of Pakistan’s commercial agriculture. This is envisioned to be achieved through improving the ability of Pakistan’s agriculture and livestock sectors to meet both international and domestic demands and requirements in AMD’s four targeted product lines: Citrus, Mango, High Value/Off Season Vegetables and Livestock. AMD envisions transforming the four targeted product lines into efficient, private sector-led value chains that deliver competitive products to domestic and export markets. AMD’s targeted training, matching grants, and technical assistance will leverage private sector investment and encourage innovation. Together, these approaches will support upgrades, streamlining of supply chains, optimization of profit margins, and an increase in the participation of women entrepreneurs, ultimately making Pakistani mango, citrus, meat and HV/OSV more profitable and competitive.

**Background Information:**

Seedless watermelons are gaining in popularity all over the world as availability of both seeds and the mature melons is increasing in international market. These melons have excellent flavor and good disease resistance. They ship well due to a good thick rind. The seedless watermelons may also have a longer shelf life than standard varieties. Since there are no seeds the melons are slow to come overripe and the yields are good comparable to other watermelon varieties. The convenience of seedless watermelons makes them particularly attractive to restaurants and other food establishments.

Seeded varieties of watermelons have been grown successfully in Pakistan for many years. The aim of this activity is to promote the cultivation of seedless watermelon, which, is a premium product that would enable farmers to have access to the premium markets and maximize returns.

The transition from growing traditional varieties of watermelons to seedless varieties is not a simple jump as the associated costs of production are significantly higher, and growing of seedless watermelons requires more technical attention to ensure that the fruit achieves the high quality that the premium buyers demand.

**Objectives of Technical Assistance:**

The international STTA will provide technical guidance and recommendations in designated fields, for the production of quality seedless watermelon for commercial sales. The consultant will chalk out SOPs related to harvesting best practices for the commercial distribution of seedless watermelon including established and tested grading standards, recommended packaging material for the target markets, proper stowage in containers, and cold management of temperature and humidity requirements. The ISTTA will work with the AMD technical team to combine existing production best practices SOPs with the post-harvest SOPs developed in this assignment into a guidebook that covers pre and post-harvest best practices for the commercial production and sale of seedless watermelon.

**Assignment Scope:**

The STTA’s tasks will include but not be limited to:

* Coordinate with AMD program team for development of the assignment work plan, field activities and strategies;
* Provide technical oversight in pre and post-harvest best practices for the commercial production of seedless watermelon at the indicated commercial level test plots.
* Work with the AMD technical team to develop SOPs in post-harvest best practices including proper handling, grading standards, recommended packaging for commercial distribution, stacking protocols, and cold management and storage.
* Work with the AMD technical team to combine existing production best practices SOPs with the post-harvest SOPs developed in this assignment into a guidebook that covers pre-and post-harvest best practices for the commercial production and sale of seedless watermelon.
* Final report outlining the technical assistance provided during the assignment that includes the final draft of the guidebook for the production of seedless watermelon.
* Any other tasks assigned by the COP and CTA relating to the production, postharvest and trial shipment of seedless watermelon.

**Deliverables:**

* Develop a detailed work plan to execute the assignment within 2 days of assignment commencements;
* Develop SOPs for harvest and post-harvest of seedless watermelon including maturity, field handling and transportation, grading, packaging, and cold chain storage and management.
* In collaboration with the AMD technical team, develop and submit a final draft of a Guidebook on Seedless Watermelon Production that should include, but not limited to, the following topics
  + Varietal selection & seed treatment
  + Media preparation for nursery raising
  + Nursery Raising and seedling transplant.
  + Land Preparation and climatic requirements
  + Transplantation & aftercare
  + Fertilization & use of micro nutrients
  + Irrigation & water drainage
  + Pest Management.
  + Maturity index
  + Harvest and Handling,
  + Field handling & transport to pack house
  + Grading.
  + Packaging materials and packing process
  + Cold chain storage and management
* Submit final report on technical assistance provided during the assignment
* Identify potential market for Pakistani seedless watermelon according ot the quality of product
* Any other task assigned by CTA or AMD technical team.

**Estimated level of effort (LOE) for the assignment:**

23 working days in Pakistan including background reading and work plan development and 2 days for report writing.

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| **Month/week** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Total** |
| International travel | 1 |  |  |  | 1 |
| Background reading &Work plan development | 2 |  |  |  | 2 |
| Field visit and discussion with producers, processor and traders. | 3 |  |  |  | 3 |
| Onsite demonstration for specific GAP for SLWM |  | 5 |  |  | 5 |
| Meeting with exporters to identify the market needs for SLWM |  | 1 | 1 |  | 2 |
| Identification of local high end market and export market |  |  | 3 |  | 3 |
| Report writing and presentation preparation |  |  | 1 | 1 | 2 |
| Deliver presentation to AMD staff |  |  |  | 1 | 1 |
| Submission of final report after feed back |  |  |  | 2 | 2 |
| Travel back to home country |  |  |  | 1 | 1 |
| Total | 6 | 6 | 6 | 5 | **23** |

**Timing of the Assignment:**

The consultant will commence working on this assignment on or about November 30, 2017

**Qualifications:**

The consultants should have:

* An advanced degree in the field of Horticulture, Agriculture, Post-harvest Technology, Agriculture marketing, Business Management and/or Food Engineering;
* 5-10 years’ experience of having worked with commercial agriculture traders or exporters as well as other players in the HV/OSV;
* Sound knowledge of cold chain and Good Agriculture Practices (GAP) in processing agricultural products and maintaining quality standards;
* Prior experience of working as a consultant with USAID or donor funded projects in Pakistan with Good Agriculture Practices, SPS, Post-harvest handling of fresh produce, pre-cooling, cold storage and international marketing;
* Excellent computer skills, in particular: Microsoft Word, Excel and Power Point;
* Demonstrable interpersonal and communication skills;
* Documented excellent writing skills in English;
* Good know how of financial modeling of a crop.
* Excellent market knowledge.
* Oral fluency in English;