

Private sector horticultural development transition project



QUARTERLY REPORT JANUARY – MARCH 2014

Implementing agency: AFGHANISTAN NATIONAL HORTICULTURE DEVELOPMENT

ORGANIZATION (ANHDO)

Contract: DCI-ASIE/2012/295-864

Europe Aid ID: AF-2012-DSA-1104654064

Reporting Quarter: 1 - 2014

Summary:

During this quarter ANHDO team the fallowing activities done:

- Inauguration of Mazar PHDC building and H.E deputy minister Haidari, director of research, Mr. Ahmadyar and Mirwais Khogyani from MAIL, Qais Qudratullah from EU, Najibullah Enayat, ANHDO general manager and Abdul Qudous head of horticulture was participated in the inauguration ceremony. Meeting with H.E deputy minister Haidari, director of horticulture and other organization for the purpose of how work in horticulture.
- Mr. Giuliano team leader of PHDP2, Najibullah Enayat general manager of ANHDO, Mr. Arzhel and head of horticulture visited Mr. Salvatore Pappalardo, chef du de development Kapisa Surobi from French embassy for implementation of 2.5 million Euro horticultural projects.
- ANHDO head of horticulture attended on one day workshop of Ministry of commerce in German Embassy for the purpose of horticulture post harvesting activities with private sector department of ministry of commerce, GIZ and other organizations.
- Head of horticulture attend on horticulture policy workshop it Deputy Minister meeting room.
- Correction of edited all part of national collection procedure and arrangement of workshop of national collection procedure with H.E Deputy Minister Haidari.
- 4 Meetings with H.E deputy minister Haidari, director of horticulture and other organization on EU new fund for NPP2, on Horticulture policy and strategy and how to work in horticulture on MAIL, horticulture plan and activities.
- ANHDO, head of horticulture participated in the final policy work shop of horticulture at MAIL.
- 4 Meetings with director of horticulture on budget, staff ToR, work plan and other issues related to horticulture
- PHDP/ANHDO had a Seminar of submission of first volume of national collection in Dr. Wakil conference room it MAIL and MAIL Minster, EU, Embosser, deputy minster's, MAIL directors, EU delegation members, PHDP, ANHDO, ANNGO, AIDO, NHLP, CHAMP, and MAIL project participated in the seminar.
- ANHDO and PHDP2 had meetings with Jan Morrenhof team leader of new EU support to capacitate MAIL in transition projects, director of horticulture for provide information, time line, budgeting, staffing and other information and cooperation with new transition project.
- ANHDO and PHDP had a meeting with Giuliano Ramat from Italian cooperation on pistachio project in Herat and Italian cooperation is reedy to provide financial support to ANHDO and ANHDO will implement the project in Herat province.
- ANHDO, head of horticulture participated in the planning of plant wise and plant protection department of MAIL.
- ANHDO head of horticulture visited time to time Jalalabad, Herat, Kandahar, Kunduz, Mazar and Badambagh PHDCs and trained field staff on pruning of pome fruit and grape and data collection.
- Database manager work on the currently uploaded website, new formats and design, continued and worked on ANHDO pages, continued work on UPOV data, remaining missing data of Peach and

Pomegranate, national collection register in in-design continued and we successfully finalized the register, with all proof reading and layout correctness.

- In 14 of March ANHDO lost has field horticulturist of Kandahar by the name of Ghous Mohammad, Mr. Ghous Mohammad had heart problem and he had good experience in horticulture and he did all related activities on time.
- Monitoring and care of trees regard to disease and some harmful insect in all 6 PHDCs on time.
- Construction of irrigation system in the base of dabble furrow irrigation system in Mazar, Kunduz and Kandahar and for Herat we will start very soon.
- Treatment of all national collections, demonstration orchards and nurseries with winter oil and fungicides in all PHDCs to prevents pest and disease in the next growing session.
- Completion of pruning of stone fruit, pome fruit, citrus, grape and other fruit trees in all PHDCs.
- Land preparation for new plantation of NCs and demonstration orchards is completed in all PHDCs.
- GF677 cutting started growing in Jalalabad and in other PHDCs under growing in the plastic tunnels.
- Using of animal manure and compost in the national collections and demonstration orchards.
- Plantation of plum national collection in Kabul, adding of new varieties to apricot, cherry, Citrus, Peach, Plum and pear national collections in all PHDCs.
- Establishment of new demonstration orchard of USA imported varieties of peach in Kabul PHDC.
- Lifting, packing and distribution of saplings and rootstocks to PHDCs, ANNGO and MAIL research stations.
- Establishment of apple clonal rootstocks, pear seedling, Mahaleb, myrobalan29C cuttings, almond seedling nurseries and grape at PHDCs to provide mother stocks trees for internal use of PHDC, NGAs, MSNs and to MAIL farms in the future.
- Treatment of all national collections, demonstration orchards and nurseries with Bordeaux mixture sprayed for protection of plants from fungal disease during growing season we have been sprayed Bordeaux mixture in all PHDCs on NCs trees as well as DOs & mother stocks trees.
- Collaboration with other organization who work on Horticulture and agriculture faculties in the 6 PHDCs.
- Provide technical training of Pome fruit pruning and training and pruning of pomegranate and IPM trainings for 90 participants, 7 groups of NHLP, AGRED, DAIL, faculties of agriculture and farmers visited PHDCs with 130 members and 150 individual farmers visited PHDCs.

Implementation of the planned activities:

No	Activity	Achievements, Facts and Figures
	v	During this quarter ANHDO management team the fallowing activities done:
		 Inauguration of Mazar PHDC building and H.E deputy minister Haidari, director of research, Mr. Ahmadyar and Mirwais Khogyani from MAIL, Qais Qudratullah from EU, Najibullah Enayat, ANHDO general manager and Abdul Qudous head of horticulture was participated in the inauguration ceremony from Kabul and inviting the DAIL and other provincial official organization to ceremony of inauguration of Mazar PHDC building. 4 Meetings with H.E deputy minister Haidari, director of horticulture, director of research and other organization on EU new fund for NPP2, on Horticulture policy and strategy and how to work in horticulture on MAIL, horticulture plan and activities.
		 Correction of edited all part of national collection procedure and arrangement of workshop of national collection procedure with H.E Deputy Minister Haidari.
		 Meetings with director of horticulture on budget, staff ToR, work plan and other issues related to horticulture.

Management Activities

- ANHDO head of horticulture attended on one day workshop of Ministry of commerce in German Embassy for the purpose of horticulture post harvesting activities with private sector department of ministry of commerce, GIZ and other organizations.
- Mr. Giuliano team leader of PHDP2, Najibullah Enayat general manager of ANHDO, Mr. Arzhel and head of horticulture visited Mr. Salvatore Pappalardo, chef du de development Kapisa Surobi from French embassy for implementation of 2.5 million Euro horticultural projects and French embassy is ready to provide fund for ANHDO to achieve the 3 years project.
- ANHDO and PHDP2 had meetings with Jan Morrenhof team leader of new EU support to capacitate MAIL in transition projects, director of horticulture for provide information, time line, budgeting, staffing and other information and cooperation with new transition project.
- Head of horticulture attend on horticulture policy workshop it Deputy Minister meeting room.
- Correction of edited all part of national collection procedure and arrangement of workshop of national collection procedure with H.E Deputy Minister Haidari.
- PHDP/ANHDO had a Seminar of submission of first volume of national collection in Dr. Wakil conference room of MAIL and MAIL Minster, EU, Embosser, deputy minster's, MAIL, directors, EU delegation members, PHDP, ANHDO, ANNGO, AIDO, NHLP, CHAMP, and MAIL project participated in the seminar and PHDP consultants, ANHDO, ANNGO, AIDO, NHLP, CHAMP, had presentations on related activities on the Afghanistan fruit national collections.
- ANHDO, head of horticulture participated in the final policy work shop of horticulture at MAIL.
- ANHDO head of horticulture time to time visited Herat, Kandahar, Kunduz, Mazar and Badambagh PHDCs and monitored field activities and changed the pruning system of grape trellis of Kandahar and Herat grape national collections, grape demos of Heart, Kandahar, Kunduz and Mazar, check irrigation systems of all mentioned centers to standardize irrigation system in all PHDCs, pruning of pome fruits of Herat, Kunduz and Mazar and check flowering data and other activities like (Stone fruit pruning, nurseries plantation, new area selection for plum national collection and GF cutting plastic tunnel) and meet all directors of DAIL.
- Database manager work on the currently uploaded website, new formats and design, continued and worked on ANHDO pages, made it complete and on home page of the website, which now have news section too. The news section will outline all the activities done by ANHDO, ANNGO and PHDP.
- ANHDO, head of horticulture participated in the planning of plant wise and plant protection department of MAIL.
- In 14 of March ANHDO lost has field horticulturist of Kandahar by the name of Ghous Mohammad, Mr. Ghous Mohammad had heart problem and he had good experience in horticulture and he did all related activities on time.

 ANHDO and PHDP had a meeting with Giuliano Ramat from Italian cooperation on pistachio project in Herat and Italian cooperation is reedy to provide financial support to ANHDO and ANHDO will implement the project in Herat province and the contract will prepared by Giuliano Ramat to signed

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		by ANHDO, general manager and Giuliano Ramat.
		The following activities done by database manager, FH assistant:
		 The database section continued our work on UPOV data description files and checked the files for errors and solved the problems the files had. Then they uploaded all UPOV data of Kunduz, Mazar and Herat to access database. The database manager worked on a small application which is finding all the missing data for each species at each Centre. We needed to find missing data so that Field Horticulturist could easily collect data for species and for the characters which they were not able to collect in previous years, this application give us an overall view of the missing data
		 that we have not collected yet. Preparing self and cross pollination trials forms on plum, almond and apricot for different PHD Centers like Kabul, Mazar, Kunduz and Herat. Taken tree habit data from Mazar almond and apricot for UPOV.
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		• In case of frost injury in Herat on flower buds the pollination trial of plum is canceled from Herat and will be done in Kandahar.
		Start looking for bud burst data collection of apple rootstock trail in Heart Elevering data data of corlection made plum national collection and
		• Flowering date, data of early varieties peach, plum national collection and almond demonstration or hard was recorded in Kandahar.
		 Fig tree UPOV has been done in Jalalabad PHDC and Flower data collection
		of stone fruit demos is ongoing.
		• The application for finding missing data is completed. With the help of the
		missing data application we were able to give reports of missing data of
		almost all species for which data have been collected in past two years.
	Adaptive Research	Database manager also worked on development of NC register in Microsoft
		Publisher and then as per printing press needs and he developed the register in
2		In-design, software for designing books and other stuff.
2		 Plantation of new almond and apricot progenies; during this quarter we have been prepared field and holes for new progenies' which is already planted this quarter according to instruction of adaptive research coordinator, as well as the irrigation system are established for all those new planted progenies in Kabul PHDC.
		• Flowering date data collection, during this quarter we started collecting of
		flowering date data of early almond and apricot varieties as well as the
		pollination trail of apricot and almond has been started in PHDC under the supervision adaptive research coordinator in Kabul PHDC.
		 Beehives at PHDC for pollination, as we rent each year beehives to PHDC for
		pollination in the past, but this year we got 10 beehives for free from by
		French Cooperation for our PHDC and we appreciate their support and
		cooperation with KBL PHDC in this regard.
		Flowering data of citrus in Jalalabad
		• Flowering data collection from 73 peach clones in NC including pictures and DUS data. Identifying off types trees by observation of flowers in NC. In case of February frost period with below of 25 degree some clones in NC was be allowed for the day of the property of 7279, 7279, 7279, 7279, 6026, 6025, 4054, and
		badly affected, clones such as 7279, 7278, 7277, 7276, 6036, 6035, 4054 and 442.
		 Flowering data collection from 19 clones of plum NC including pictures and

DUS data in Herat PHDC. Had some flowering UPOV characterization process on peach and plum national collections on other hand we recorded early and mid-flowering clones in peach and plum national collections, late clones description will be in our April month action plan from Kandahar PHDC. Mrs. Ahmad shah "Zarghon", has arrived in this month and had gorgeous cross pollination gift with himself to Kandahar-PHDC, he applied his cross pollination research program on plum national collection with creating jobs for four agriculture faculty students as an internship. Database section continued working on UPOV data, specifically the missing data and its reports to PHDCs. **National Collection** The below activities was achieved in Apricot and Apple, pear, plum and cherry national collections. As we have apricot, cherry, apple and pear national collections in Badam Bagh PHDC and we already pruned apricot national collection in fall and we did not have something remaining for this quarter to do, in cherry national collection we will not do dormant pruning we will do green and summer pruning on it to protect the trees from pest & disease problems in the future and growing season. Start pruning of apple national collection during this month we did simple pruning on each tree just for motivation of tree to produce fruit spurs and bear fruit soon. Pear national collection as we planted this collection in 2013 it only need simple formation pruning just to manage the growth habit of plants as well as motivate the trees for the production of fruit spurs to bear fruit quickly after planting. • With contribution of labor of Badam Bagh farm we have collected all pruning branches and woods from the fields of national collections. As we have already mentioned in last month report we prepared the field for plum national collection for plantation in the month March 2014 we fill back all the holes with mixture of soil, DAP fertilizer and farm yard manure to be composted during winter and in March we planted, from each clones of plum 4 trees of each in this collection of 67 clones with total number of 268 trees. During this quarter we finished pruning of apple national collection. Winter oil sprayed on all stone and pome fruit national collection to reduce pest and disease problems in the summer. For the production of best quality fruit we did hard pruning on all national collection because in the past years we did not pruned those collections properly for collecting the natural data of leafs, tree vigor, growth habit, flowers and fruits, as we collected those mentioned data in the past years now PHDC Kabul 3 we properly pruned those trees, to produce quality fruit for farther evaluation and research. Plantation of 3 new USA imported apricot varieties in the apricot national collection. Plantation of one new USA imported cherry variety in cherry national collection. Planting 2 new pear varieties, one was collected from Kabul and one from Khinjan district of Baghlan province.

For all above new planted saplings we established the irrigation system after plantation.

Demonstration Orchards

- As we already pruned most of stone fruit demonstration orchards during in the
 month of January we Pruned almond demonstration orchard as per Mr. Greg
 instruction we did very simple pruning on almond demo only removing of
 water sprouts, dried branches as well as some braches which was very closed
 to ground.
- During this quarter based on the request of database manager for update maps and list of varieties of demonstration orchards we updated all maps and list of varieties of different fruit species demonstration orchards which we have in PHDC for database, as well as with MAIL Badam Bagh farm directorate contribution of labor we have collected all pruning branches and woods from the fields of demo orchards.
- Removing extra trees from apple MM111 demonstration orchard
 During this quarter based on the decision of Mr. Greg and other colleagues we
 uprooted extra trees from the middle of mentioned demonstration orchard to
 because it was planted in very closed spacing as the rootstock of those trees
 are MM111 which vigorous rootstock for apple because of that most of the
 tree was over lapping to each other based on that problem we decided to
 remove one row after each from the middle.
- As well as we sprayed winter oil on all demonstration orchards of stone and pome fruits.
- New Peach DO, According to the extension of demonstration orchards we have been planted a demonstration orchard of USA imported 8 varieties of peach in Badam Bagh PHDC for the evaluation and comparison with our local and imported peach varieties which we have already in PHDC and providing mother stocks tree from the best varieties in the future.

Nursery

Preparation of field for progenies of almond & apricot:

- We have been already provided update list of planting materials which we have in PHDC and ready for distributed to internal need of PHDCs and ANNGO member NGAs.
- labeling of nursery to be ready for distribution:
- As we have stone and pome fruit nurseries in Badam Bagh PHDC which is ready for distribution to ANNGO member NGAs as well as to PHDCs MAIL and DAIL we prepared labels for all saplings which we have in the nursery and soon we will start lifting, packing and delivery of those saplings to the PHDCs and ANNGO based on the distribution list.
- Distribution of myrobaln29C cutting to ANNGO members, during this month we have been distributed cuttings of mention rootstocks which are the best rootstock for apricot and plum as well as propagating by cutting very easily.
- Saplings & rootstocks for ANNGO, Based on the PHDC plan for nurseries we distributed plum, apricot and cherry budded saplings for mother stocks trees as well as apple clonal rootstocks of B9 and M9 to ANNGO,
- Establishment of new nursery in PHDC, During this month we have been established myrobalan29C cutting for apricot and plum, Mahaleb rootstocks for cherry, pear seedlings rootstocks, B9, M9, M7, and MM111 clonal rootstocks nurseries in Badam Bagh PHDC for budding of new evaluated best

		varieties to provide mother stock tree as well as to provide saplings in the future for MAIL Badam Bagh farm based on MAIL demand.
		Plant protection
		Bordeaux mixture and winter oil was sprayed, for the protection of plants from fungal disease during growing season we have been sprayed Bordeaux mixture in all PHDC on NCs trees as well as DOs & mother stocks trees.
		Interaction, collaboration, partnership with other NGOs working in horticulture • ISAF IJC Director visited PHDC
		During this month ISAF IJC new director and staff have been visited PHDC activities and biotechnology lab on 29 th of January 2014.
		• Inspection of PHDC 2013 field activities by Audit:
		Based on the completion of year 2013 Kabul PHDC fields and activities and
		Pomology lab tools have been inspected by audit, as well as compared with the data which we have been provided to them in the office before.
		Arrival of Farm Tractor and tools from Italy for PHDC of Kabul, in the same
		time we received the training of tractor & machinery use at farm with all field
		staff of ANHDO from other PHDC as well at KBL PHDC.
		National collection
		The below activities was achieved in Apricot and Almond national collections.
		Monitoring all trees regards to harmful pest.
		Pruning of Apricot and Almond national collection in the month of January
		Application of winter oil.
		Plantation of almond sapling in missing places.
		Prepared irrigation system of almond national collection with dabble furrows.
		• Taking data from frost damage of apricots, 80% flowering buds affected by frost damaged.
		Taking data from frost damage of almond and about 100% of flowering bud affected by frost damaged.
		 Land preparation and leveling of almond NC area for growing clover as
		intercrop.
		Taken of flowering data of apricot national collection
		Plantation 2 new apricot clones and planting of almond sapling in missing
		accessions.
		Application of Urea fertilizer and fallowed by irrigation Application of Pandagury minture for protect almost disease.
		 Application of Bordeaux mixture for protect almond from fungus disease General care
		Demonstration Orchards
		The following activities were achieved in the peach, plum, pomegranate, grape, pear
4	PHDC Mazar	and apple demonstration orchards.
+		• Field monitoring, for the pest and disease.
		Winter oil application to all demos.
		Prepared irrigation system with dabble furrows irrigation
		 Land preparation and leveling for intercrop growing and general care.
		Urea fertilizer application and fallowed irrigation.
		Application of Bordeaux mixture for protect almond from fungus disease
		Grape pruning according to can and spare system
		Pomegranate plant affected by frost damage and cut from the soil surface and

bud are emerged. 10 new pomegranate clones are added in the pomegranate demo. Land preparation for establishing of 8 new clone of Fig demo. **Nursery**: • Planting GF cutting under Plastic tunnels. Putting of 7 kg of better almond in welted sand for completion of dormant period, land preparation for the nursery and plantation in the nursery. • Lifting, packing and transferring sapling to PHDC, ANGO MAIL and DAIL. Plant protection Application of winter oil to all Almond, and apricot NC and all trails to protect plants from pest. Application of Bordeaux mixture for protection of plant against fungus disease in grape .Almond, peach, plum. Application of Bordeaux paint to protect and control of gummosis. Interaction, collaboration, partnership with other NGOs working in horticulture Participation in Agriculture sector meetings. Facilitation and inviting related organization for PHDC office inauguration Meeting with AGRED organization regard to provide to facilitation of pruning training to women orchard owners. Participation in Animal mortality meeting in DAIL. Participation in a meeting for NOWROZ celebrations. Participation in farmer festival Participation in meeting for submitting of the registered of Almond NC to **MAIL** Participation in Pomology training workshop in Kabul. Given information for 3 group of 21 HLP EW and DAIL regard to pruning and nursery activities. National collection The below activities was achieved in the almond, apple and pear national collections. Monitoring and car of trees regard to the some harmful insect and disease. Continue the land preparation of almond and pear national collections. Change irrigation system to double furrow. Application of winter oil and of Bordeaux mixture for protection of plant against fungus disease. Distribution the compost to almond plots. Planting the pear sapling instead of miss tree. **PHDC** Fertilizer application to all national collections. 5 Kunduz Pruning of almond apple and apple and pear national collections. Record keeping of flowering data from all of almond, pear and apple, national collections. Land preparation and planting miss tree apple and pear national collection and adding one new variety of pears in the national collection. **Demonstration orchards:** The fallowing activities were achieved in the almond, peach, plum and grape demonstration orchards. Land preparation of peach demonstration orchard for reconstruction and change irrigation system to double furrow.

- Collecting the brunch that cut during the pruning.
- Land preparation of peach and plum demos for changing the irrigation system to double furrow.
- Fertilizer application to all demonstration orchards.
- Pruning of apple and grape demonstration orchards.
- Record keeping of flowering data from all of peach, plum and almond demonstration orchards.

Nursery:

- Preparation bitter almond seeds from market for stratification and plating the almond seeds for new nursery establishing.
- Uprooting the almond sapling according to the ANHDO main office order and delivery to ANNGO, MSNs
- Preparation of 1000 grape cutting and planting of grape cutting in the nursery.
- Land preparation and planting (1130) cutting of Myrabolan in the nursery.
- Land preparation and planting (750) M-7 and 550 MM-11.

Plant protection

- Collecting leaf witch effected to pests and diseases.
- Painting the witch place cutting during the pruning.
- Winter oil spray to all research farm trees.
- Application Bordeaux mixture for protection of plant against fungus disease.

Interaction, collaboration, partnership with other NGOs working in horticulture Provide a training workshop of pome fruit pruning for 40 participants.

National collection

The below activities was achieved in the citrus, citrus net house, pomegranate, persimmon, date plum, fig and loquat national collections.

- All routine tasks such as irrigation, weeding, and others have been conducted on time.
- Once again there was shortage of water but luckily we continued the irrigation as normal since we have the auxiliary source for irrigation.
- The irrigation system of pomegranate NC has been changed from double furrow to plot system.
- The trees in the national collection have been pruned lightly.
- The trees in the net house have been pruned a bit heavily. Because the aim is to keep these trees inside the net house in a control way.
- Last year we have pruned the pomegranate trees in the national collection heavily but this year just the unwanted shoots have been removed to control the size and shape of the trees.
- Some trees of fig were damaged by stem borer last season the phloem tissues were completely damaged and the trees were girdled, so we took cuttings from those trees and cut them back to a little stub were new suckers will emerge and we will use them and will raise a new tree from them. If we failed with these new suckers then we already planted the cuttings of these clones in a nursery and next year we can replant these trees.
- Loquats are growing earlier than other species of fruit so they needed irrigation even when other trees were dormant so this month due to lack of canal water we irrigate the loquats using well.
- Flowering date, data collection is being taken.

6 PHDC Jalalabad

- Fertilization of citrus trees (applying 250gr Urea/tree).
- Plant bio technology lab imported five varieties of citrus indicator plants. We have included these five varieties in the citrus national collection for future usage of indicator plants. On 17-March -2014 arrived 265 saplings of five varieties of indictor plant from Italy to PHDC-JAL for plantation of citrus indictor plant.
- Before planting and entering indictor plants in the net house we have sprayed the net house floor with herbicides to kill the weeds emerged this season and then the whole net house has been sprayed with insecticide to kill any insects if exist in the net house.
- Planting the missing plants of persimmon national collection.
- Some trees of fig national collection were damaged by stem borer and we have cut those trees and took cuttings from them and we plant the cuttings in the nursery. We expect that the cut back trees will sprout and we will have healthy plants in future, if not we will plant new saplings of those clones.

Demonstration orchards

- All tasks have been done on time in the apricot, peaches and nectarines, citrus trail and grape demos like irrigation, weeding, flower data collection, pest and diseases data collection and spry insecticide (Confidor 1.5cc/liter)
- The early varieties of peaches and nectarines started to flower.
- Pruning stone fruit trees, citrus, grape demos and internal stone fruit mother stock plants have been pruned.
- The irrigation system has been amended. We have noticed that the trees didn't received enough water last year.
- In the grape demo was only one wire in the trellising system of our grape vineyard but this time has installed another wire on the top.
- Three clones of apricot (6211, 6214, and 6213) and five clones of plum (6304, 6307, 6039, 6311, and 6037) have been replaced with low chill varieties of apricot (KB0268, M29, KB0267, and APACHE) and plum (KB 0273, KB0270, KB 0289, KB0357, 359). The previous accessions didn't give us good results in the past few years and they were looking to be high chill accessions thus it has been decided to uproot them and replace them with low chill varieties and hope the new varieties will have better results.

Nursery

- All routine tasks have conducted on time such as irrigation, weeding and others such as suckering control of grafting and prepare sign board for new nursery
- The GF677 cuttings are growing well but we have to wait to see find out the percentage of alive saplings.
- We have extracted Volkamer seeds and sow them in two different places.
- We have successfully distributed the saplings from our nurseries to ANNGO NGAs. All activities related to us have been done on time and perfectly.
- This year we had pomegranate and citrus nurseries. And we have distributed all the saplings according to the distribution lists we have received.
- Most of the citrus saplings have been given to NVDA citrus MSN while the rest of saplings were allocated to Kunar, Laghman and Nangarhar NGAs citrus MSNs.
- We have established a fig cutting nursery according to the plan we received and in this nursery we will be able to raise around 300 rooted cuttings.

Plant protection

- Spraying winter oil in pomegranate NC to avoid potential risks of insects.
- Application of insecticide (Confidor) against aphids in the loquat NC and DO.
- Spraying Fungicide on citrus trees in the net house after pruning to avoid fungal attack.
- Application of insecticide (confider) 120cc/100liter water in stone fruit demos, citrus national collection for aphid control.

Interaction, collaboration, partnership with other NGOs working in horticulture

- On 6 January 2014 RoP Nangarhar accompanied RoP Bamyan staff visited PHDC.
- On 12 January 2014 Afghan Rural Enterprise Development Program (AREDP) via NNGA visited PHDC-JAL. Total number of participants 25.
- Based on need we have produced a video learning program on how to use internet to find out relevant agriculture information. The program is going to be copied in 1000 CDs and will be distributed to universities, institutes and agriculture high schools.
- In the month of January around 150 people visited PHDC-JAL including students, visitors, and farmers who came for guidance how and what varieties to plant in their orchards, how to prune fruit trees, what varieties have good market to be propagated.
- Nangarhar agriculture institute representatives together with Nangarhar TV agriculture program director visited the farm and asked for further assistance.
- ANNGO organized a four days training for field officers and area facilitators of MADERA and MC in PHDC-JAL.
- In the month of February two times TV program organized. This time the program was more technical and it was about how and where to find good saplings, how to recognize good saplings, how to plant them and what to do after planting.
- 9 March 2014 Nangarhar university students came to PHDC –JAL for practical works on IPM
- On 22 March 2014 Nangarhar University, 2 teachers came to PHDC-JAL visited from farm and we brief them and they appreciate PHDC-JALs work.
- Training has been organized for almost 10 students on pomegranate training and pruning.

National collection

The below activities was achieved in the grape, peach, plum, cherry and pistachio national collections.

- Reviewing working plan 2014 and review pruning system of grape. Deep watering to reduce risk of fungal disease and train roots to grow down, making plants less vulnerable to disease.
- Evaluate bud break of early varieties of Peach and estimate damage occur with early flowering varieties.
- Spraying of winter oil to control overwintering pests and pruning of trees finished.

PHDC Herat

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- Revising and prepare irrigation canals of Plum NC to allocate bud union above soil surface and prevent fungal diseases. Evaluate bud break to start pollination trial with 28 Clones of plum.
- Evaluate winter frost damage in bud and cane of seed and seedless varieties.
- Planting missing vines which is received from Kandahar.
- Deep watering to reduce risk of fungal disease and train roots to grow down, making plants less vulnerable to disease.
- Spraying with Lime Sulphure for controlling powdery mildew diseases.
- Weather change occurred in beginning of February. The earlier bud swelling of the peaches variety with developing bud they become most susceptible to frost injury.
- Adding 8 new imported varieties from USA to NC. Now the total Clones in the peach NC.
- Plum NC trees have been covering much more of the ground in 2009, working to get but unions out of the ground.
- Application of animal manure and potassium in the plum NC.
- Start looking for bud burst data collection.
- Preparing of pistachio rootstocks for grafting during March or May.

Demonstration orchards

The below activities was achieved in the grape, apple, plum, apricot, pear and almond demonstration orchards.

- Revising and prepare irrigation canals of Apple demo to allocate bud union above soil surface and prevent fungal diseases.
- Study on number of spur, length of spur and trunk diameter in each variety in apple demo.
- Deep watering to reduce risk of fungal disease and train roots to grow down, making plants less vulnerable to disease.
- Spraying of winter oil to control overwintering pests finished.
- Monitoring from bud burst in apple, Peach and Almond Rootstock Trial demo, fertilization after leaf out in the spring and adding missing trees in almond plot.
- Monitoring from bud burst in plum demo, fertilization after leaf out in the spring and adding new variety of TC Sun Clone 7145 in the demo plot.
- Monitoring from bud burst in apricot demo, fertilization after leaf out in the spring and adding new variety of Aurora Clone 7135, Amber Cot Clone 268 and Gold Cot Clone 265 in demo plot.
- Spraying with Lime Sulphure for controlling powdery mildew diseases in grape demo.

.Nursery

- Deep watering to reduce risk of fungal disease and train roots to grow down, making plants less vulnerable to disease.
- Spraying of winter oil to control overwintering pests.
- Preparation for delivering of rooted cutting according distribution plan
- Grape cutting collected from national collection and cutting transplanted in plastic pots under plastic tunnel to increase of success rooted cutting.
- Monitoring from success rate of peach nursery and weeding of nursery.
- Transplanted local seed of pistachio in plastic pot for extending NC.

Plant protection

- Applying winter oil in national collections and demos completed. For best result: 200 gram Volk oil, Ateyoun 30 cc and water 20 liter.
- Spraying lime sulphure in grape national collection and demos for controlling powdery mildew.
- Spraying peach national collection and demo with fungicide and volck oil for controlling peach leaf curl.

Interaction, collaboration, partnership with other NGOs working in horticulture

- Agriculture Rural Development Sectoral Meeting: Every other Thursday DAIL is organizing meeting with NGO partner to receive update report about activities under programs and be involve in decisions with NGOs. I raised two comments; first electricity consumption in ANHDO building and second summary of ANHDO activities during the month and working plan 2014.
- Talking about electricity consumption bill which is received by ANHDO and requesting for payment of bill by DAIL according MOU agreement.

Lime Sulphure Preparation Training Program:

- Holding one day training program for orchard growers with total of 20 participants.
- Mr. H Bashir Ahmad Ahmadi , DAIL/ Agriculture Programs director, Herat, Mr. Joe Stangl, AAEP Manager- Herat, Mr Mohammad Shah Rauf, AAEP Officer, Herat, Prof. Jami, Dean of Agriculture Faculty, Herat, Discussing about Pistachio Promotion Group. We agreed to invite all stockholders who are involve in pistachio industry like DAIL, NGOs, Trader, Pistachio Orchard Growers in meeting and obtain their idea and advice for establishing PPG.

National collection

The following activities is in the peach, plum, pomegranate, fig and loquat national collections:

- For controlling some kind of pest and fungus disease we applied Boudreaux mixture in grape national collection and the same time winter Oil + fungicide was applied in grape, peach, plum, pomegranate and fig national collections.
- The irrigation system of 12 new planted (2013) clones of peach national collection was improved and enlarged because during the season the trees growth was more and it caused to increased needs for more water during irrigation.
- For more sanitation of the farm all field unwanted materials or dried wood, weeds and branches were collected and removed from the pomegranate and fig national collections and then all materials for compost making were buried.
- For plantation of 8 new clone of peach national collection we could to dug 32 holes and after adding the required fertilizer and manure was applied
- Flowering date data collection of the early varieties of peach national collection
- According to the plan, animal manure was procured and then combined with DAP and potassium sulphate and applied in national collections.
- All farm trees for any kind of pest and diseases were regular monitored and regular irrigated.
- Flowering date, data of early varieties of peach, plum national collection and almond demonstration orchard was recorded.

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- We also tied up the hanging branches of grape vine trees to the trellis main and sub wires.
- Pruning of pomegranates national collection was done with the advisory and supervision of Head of field horticulturist; we did pruned head cuttings and some extra branches of pomegranates trees in order to have best quality fruits and to maintain leaves shadow on fruit to prevent them from direct sun light.

Demonstration orchards

- For controlling some kind of pest and fungus disease we applied Boudreaux mixture in grape demonstration orchards and the same time winter Oil + fungicide were applied.
- For more sanitation of the farm field all unwanted materials or dried wood, weeds and branches were collected and removed from the grape demonstration Orchards areas which will effect more on controlling or reducing the amount of pest and disease in the next season and then all materials for compost making were buried.
- Pruning of the almond demonstration Orchard tress which was postponed for the faculty students practically training was done.
- According to the plan, animal manure was procured and then combined with DAP and potassium sulphate was applied in grape 2008, almond and pomegranate demonstration orchards and the same time main irrigation canals of grape demonstration orchard was cleaned.
- 25 Missing of grape demonstration orchard were replanted.
- Grape demonstration orchard of 2008 was pruned.
- We established apricot demonstration orchard consist of 5 clones with 8 trees per clone received from Kabul PHDC, till now no problem or disorders can be seen in mentioned DO.
- We arranged and repaired the water channels and rows between the plants in each individual DO.

Nursery

- Regular irrigation and weed control in all 3 cutting nursery and for controlling some pest and disease Winter Oil was applied.
- Labeling, lifting and packing rooted cuttings of grape, fig and pomegranate were distributed to ANNGO, Herat and Mazar PHDCs
- Pomegranate nursery has risen up consist of 8 highly recommended clones with different numbers available for cuttings; beside this we established fig national collection nursery with 8 highly recommended clones in this month.
- Grape cutting nursery has also risen up with around 21 clones in the same month.
- All nurseries are in good condition at the moment free of pest and diseases infection.

Plant protection

- On date 02,01,2014 for the controlling some kind of pest and disease Bordeaux mixture was applied in grape demonstration orchard.
- On date 03-01-2014 for the aforementioned purpose the winter Oil +zinab was applied in grape national collection and also on dates 05. 07.17.19.01.2014 it was applied in Fig, peach, plum national collections as well as in grape, pomegranate and fig cuttings nurseries.

Interaction, collaboration, partnership with other NGOs working in horticulture

- On date 04.02.2014 a meeting was held with Mr. Fahim Mehry CDIS project SWD advisor and focus was on coordination between Organizations which are working in Kandahar in the field of agriculture and when he was informed about our good coordination and the project positive role in the area he was very happy for it.
- On date 10.02.2013 a meeting was held with Mr. Mohammad Wali Nasari DFP project management specialist of USDA and he was informed about positive role of our project in the area and then he appreciated for it.
- On date 19.02.2014 Kandahar agriculture faculty 22 students came to our farm and received enough information about the stone fruit trees pruning and training and also answered theirs questions about drip irrigation and differentiation of the T and I trellis system.
- On date 20.02.2014 around 60 trainees of AGRED visited our farm and they received enough information about the grape vine T trellis system and then practically they learned lime sulphure preparation and spraying it means our farm was used as training center.