



Private sector horticultural development transition project



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Implementing agency: AFGHANISTAN NATIONAL HORTICULTURE DEVELOPMENT ORGANIZATION (ANHDO)

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Reporting Quarter: 2 - 2013

Summary:

During this quarter ANHDO team the following activities done.

- ANHDO have coordination meeting with AAEP project of USDA, Meeting with deputy minister Ghoriani on faculty of agriculture problems, Meeting with home economy department of MAIL on working group, Meeting with H. E Minister on parliament member visit from Badambagh PHDC, On 8 April parliament members visited ANHDO activities in Badambagh PHDC, Management staff had 2 meetings with Extension director on strategy of research and ANHDO get responsibility of draft horticulture research strategy and ANHDO provide them the draft horticulture research strategy, meet HWG on horticulture policy and strategy. ANHDO staff participated on horticulture policy and strategy 2 days' workshop also one day workshop in the next phase of re correction of policy and strategy workshop and 4 meetings. PHDP and ANHDO hold a research meeting and PHDP, ANHDO, ANNGO AGRED, JICA, AAEP and research department of MAIL presented their activities and plan for next 3 years, meeting with NHLP and ANNGO on preparation of planting materials, hold next meeting with deputy H. E minister Ghoriani on planning of fruit Production and marketing of PHDCs, problems of workers in the PHD Centers and others problems.
- The NC list which was nearly completed, conduct self and cross pollination trials of apricot and almond. Filling the data received from PHDCs regarding pollination trials and flowering dates and entered UPOV data from deferent PHDCs and filed the data in the database.
- ANHDO, ANNGO and PHDP2 hold staff coordination meeting in Herat, all participants presented their achievements of last 6 months and received training of fruit thinning and harvesting, meeting with Ziarat Jah cooperative members, visited packing house and cold storage of cooperative association of Heart.
- ANHDO, Head of horticulture visited Mazar Herat, Jalalabad, Kunduz and Badambagh PHDCs to train field staff of PHDCS on laboratory testing of PH, Acidity, sugar and other characters of deferent fruit species and varieties
- Field monitoring of Mazar Herat, Jalalabad, Kunduz and Badambagh PHDCs from national collections, demonstration orchards and nurseries and provide green pruning practical training of grape, stone fruit and pome fruits and regular monitoring of Pomology labs.
- Monitoring and care of NCs and DOs from disease and some harmful insect and prevent them with reasonable way by field staff.
- General activities including weed control, irrigation, and nutrition etc of all PHDCs.
- Green pruning of NC and Dos in all PHDCs and harvesting of fruits from NCs and DOs.
- Proper irrigation and weed controls and fertilizer application in all NCs and Dos.
- Preparation of 8 field days and fruit show for 313 participants in Kunduz, Kabul, Kabul, Jalalabad and Heart and trained 75 faculties of agriculture students on IPM.

- Provide technical information to 33 groups with 804 participants of Faculty of Agriculture students, NHLP, AKF, AAEP, MAIL, IDEA-NEW, MC, framers and MADERA in the PHDCs
- Inauguration of Mazar PHDC building and activities on going in Mazar and Kunduz PHDCs buildings

Implementation of the planned activities:

No	Activity	Achievements, Facts and Figures
1	Management Activities	<p>In the second quarter the following activities done by ANHDO management team:</p> <p>ANHDO have coordination meeting with AAEP project of USDA to use the PHDCs for training purpose and ANHDO will trained AAEP extension staffs in the PHDCs. Meeting with deputy minister Ghoriani on faculty of agriculture problems, Meeting with home economy department of MAIL on working group, Meeting with MAIL, H. E Minister on parliament member visit from Badambagh PHDC, On 8 April parliament members visited ANHDO activities in Badambagh PHDC and Tissue culture laboratory and FAO seed laboratory. Management staff had 2 meetings with Extension director on strategy of research and ANHDO get responsibility of draft horticulture research strategy and ANHDO provide them the draft horticulture research strategy, meet HWG on horticulture policy and strategy. ANHDO staff participated on horticulture policy and strategy 2 days' workshop Participated in the three deferent horticulture working group meeting on horticulture policy and strategy and summarize each paragraph of policy and strategy for horticulture policy and strategy workshop. Participated in horticulture second policy workshop it MAIL conference room to complete the horticulture policy.</p> <p>PHDP and ANHDO hold a research meeting and PHDP, ANHDO, ANNGO AGRED, JICA, AAEP and research department of MAIL presented their activities and plan for next 3 years, meeting with NHLP and ANNGO on preparation of planting materials, hold next meeting with deputy H. E minister Ghoriani on planning of fruit Production and marketing of PHDCs, problems of workers in the PHD Centres and others problems.</p> <p>ANHDO, Head of horticulture visited Mazar Herat, Jalalabad, Kunduz and Badambagh PHDCs to train field staff of PHDCS on laboratory testing of PH, Acidity, sugar and other characters of deferent fruit species and varieties.</p> <p>Field monitoring of Mazar Herat, Jalalabad, Kunduz and Badambagh PHDCs from national collections, demonstration orchards and nurseries and provide green pruning practical training of grape, stone fruit and pome fruits and regular monitoring of Pomology labs. Head of horticulture visited grape value chain activity of CHA, funded by JICA in Injil District of Herat Province, the activity is very good but CHA installed grape trellising only for one farmer in 1.2 Jerib of land.</p> <p>The NC list which was nearly completed, conduct self and cross pollination trials of apricot and almond. Filling the data received from PHDCs regarding pollination trials and flowering dates and entered UPOV data from deferent PHDCs and filed the data on the database and corrected the list as according to the confirmed and finalized list.</p> <p>ANHDO, ANNGO and PHDP2 hold staff coordination meeting in Herat, all participants presented their achievements of last 6 months and received training of fruit thinning and harvesting, meeting with Ziarat Jah cooperative members, visited packing house and cold storage of cooperative association of Heart.</p> <p>ANHDO prepared fruit boxes to send the samples of their fruit to markets and introduction of PHDCs fruit to MAIL, DAIL, provincial local authorities.</p> <p>Meeting with AAEP for providing technical training for AAEP women farmers group it Badambagh in seasonal base and we arranged next meeting to make plan for one</p>

		<p>year.</p> <p>Inauguration of Mazar PHDC building and Mazar PHDC building constriction, instructed to provide PPE for site labors, instructed to clean ground floor surface and curing ground floor concrete and columns concrete and Kunduz building is ongoing.</p>
2	Adaptive Research	<p>The following activities done by adaptive research staff:</p> <p>Started work on national collections list cross checking and sorting out the problems of each species for all centres. The entire species national list have been checked like pomegranate, apple, pear, citrus, date palm, loquat, fig, cherry, persimmon, and plum completed.</p> <p>Worked on organizing the data description files, naming and sorting the problems of prioritized species like almond, apricot and pomegranate data for the national collections catalogue (The Book). Worked on almond file and discussion with database manager regarding cross checking and accuracy of the file and prepared draft of letter head for reporting of NC missing, duplicate etc. and circulated for improvement to colleagues Updated the list of national collections and sent to FHs for confirmation.</p> <p>Prepared presentation for Research Coordination Meeting, the activities on description of varieties were presented in the meeting to inform the stakeholders and share the concepts and ideas.</p> <p>Entered the data of almond evaluation by almond traders of Mazar and Kunduz provinces to describe the varieties Sorting out almond national collection varieties and finalized the almond assessment and renaming Prepared presentation for Staff Coordination Meeting, Prepared protocol for assessing grape ripeness.</p> <p>Worked on almond assessment finalization, renamed the misnamed accession which would be formally released. Prepared descriptor PDF datasheet files for Kunduz and Herat PHDCs to describe the remaining accessions of NCs. Conducted practical training of Apple, pear, almond apricot fruit descriptor for FHs, students and MAIL staff of Mazar and Kunduz PHDCs. Instruct the FH assistant of Mazar and Kunduz to take proper pictures.</p> <p>Data arrangement for the book or National Collection catalogues the first priority is almond which would be adds into the book.</p> <p>Conduct self and cross pollination trials of apricot and almond. The first trial was crossing among 12 Amiri types to know the compatibility among them but the second trials was a cross between National Amiri apricot types with International varieties which is self fertile, late flowering and early ripening, the seeds we will gain from this trial will be used for further breeding program. Supervised the planting process of new almond varieties in a new demonstration orchard. In this demonstration plot we will study all the characters (flowering time, yield, ripening time, shell and resistance to pest and disease. Filling the data received from PHDCs regarding pollination trials, flowering dates.</p> <p>Fruit count of almond cross pollination trials in Kunduz, Mazar and Kabul PHDCs and apricot cross and Self pollination trials with the University student, A shot observation on frost damage at Kunduz and Mazar PHDCs and some commercial orchards,</p> <p>Participate in the visual observation evaluation of the apricot accessions in the in order to do better differentiations among the varieties in the national collection.</p> <p>Conduct the first evaluation of pear psylla at pear national collection; this program has been started by the technical helps of the Florence University of Italy and it was the third and last year of evaluation. Every year we do two to three evaluations and we share the results with the mentioned university and data analyze of cross and self pollinations.</p>
		<p>National Collection</p> <p>During this quarter we have been done UPOV descriptors of cherry national collection including taking of flowers pictures and also we have put urea fertilizer to</p>

3	PHDC Kabul	<p>all national collections of Apple, Apricot and cherry, as well as we have did maintenance and weeding of all national collections and as we see most of our apricot and cherry national collection site good fruits and also same of apple national collection clones site fruit. Flowering dates data have been collected from all national collections for each day from starting bud burst up to leaf fall.</p> <p>Monitoring of all National collection, as well as we did thinning of fruit of same apricot varieties specially imported varieties for improving of fruit quality and keeping balance between production and tree growth.</p> <p>We have been done fruit UPOV descriptors of to early varieties (Burlat & Moreau) of cherry national collection including taking of pictures, as we have very good market for most of early fruit in the country we really need to have such kind of varieties in deferent species as well as we need to have for log season fruit of those species in the market which is very necessary for most of the farmers to have best and marketable varieties in their orchards for having of good income in the future.</p> <p>Screening and group evaluation of varieties of apricot national collection, fortunately most of apricot clones sit fruit this year and it shows some problems of missed name, wrongly named and duplicated varieties in apricot national collection because of that we have done screening of clones for improvement and correction of national collection of apricot, the final report of that will be share later on with all.</p> <p>Harvesting of fruit and UPOV descriptors of cherries we harvested all sweet and sour cherry varieties of cherry national collection from 32 clones we have got fruit and data of 26 clones most of sweet cherry is the best varieties with deferent maturity time to market it means we have early, medium and late varieties. As well as we harvested most of apricot early varieties as well, as we got fruit UPOV data of apricot last year only 12 clones was remaining from last year which we got data of 9 clones from them during this month.</p> <p>Market evaluation, for providing of technical information about the varieties of fruit for ANNGO, we send fruit of deferent varieties to the Market for evaluation of the price based on the maturity time of each clone.</p> <p>Demonstration Orchards</p> <p>Application of urea fertilizer to all demonstration orchards, Planting of new selected and grafted varieties breeding lines of almond in finale field of demonstration for farther evaluation in the future. Maintenance of all demonstration orchards (weeding, irrigation and control of pest and disease of all fields).</p> <p>Flowering dates data have been collected from all DO for each day from starting bud burst up to leaf fall. For good horticulture practices we rented 5 Bee hives colonies for good pollination of almond and other DO.</p> <p>Peach thinning, based on standard orchard practices, we did thinning of peach demonstration orchards because of heavy yield, thinning of peach which is really imported for all fruit species specially peach should be thin because it produce fruit on one year long shot so if we don't thinning peach in case of heavy crop it will effect more on next year production so peach should be thin in case of heavy crop each year. Harvested only one variety of early peach (Mycrest - 6303) and soon we will have other early varieties of peach and nectarine as well ready for harvest. Thinning of high density apple orchard, based on standard of thinning to keep balance between</p>
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	<p>production and growth.</p> <p>Nursery</p> <p>As we have been established new nurseries of Apple seedling, pear seedlings, almond seedlings, peach seedlings, myrobalan29C cuttings, grape cuttings, and same apple & cherry, deferent clonal rootstocks nurseries in Badam Bagh most of those nurseries are germinated very well which will be ready for budding for the best varieties of fruit this year, as nurseries need proper management we take care of it which we did weeding, irrigation and maintenance on time.</p> <p>As we have been budded last year apple on B9, M9, apricot on seedlings and apricot on myrobalan29C rooted cuttings and plum on myrobalan29C rooted cuttings most of buds are taken very good. We have done weeding, irrigation and maintenance of those nurseries for having of good growth of scion during the year.</p> <p>Apricot and almond breeding lines: as we sawed before in winter seeds of apricot crosses and some almond crosses we got very good result of germination of all those seeds for the farther evaluation those progenies will be transplant to evaluation field next year which we hope we will get good result and release same best new varieties from those progenies.</p> <p>Plant protection</p> <p>During this quarter we had problem of green aphids on Peach, almond, Plum and apple demonstration orchards which are controlled immediately and before the problem we only spray apple national collection and demonstration orchards for protection codling moth problem in apple fruits.</p> <p>Interaction, collaboration, and partnership with other NGOs working in horticulture</p> <p>Australia Parliament Member visit:</p> <p>During this quarter the Australia parliament members and MAIL Minister Mr. Rahimi visited PHDC activities.</p> <p>Laghman ATVI Institute student visit:</p> <p>Laghman ATVI students of agriculture visited PHDC we have been provided and explain all of our activities to them one by one,</p> <p>Director of horticulture visited PHDC especially she focuses on Apple high density orchard which we have been provided related information to her.</p> <p>NHLP central zone 60 field staffs visited PHDC we have been provided to them technical information related to management of high density apple orchard management.</p> <ul style="list-style-type: none"> • Visit of NHLP regional staff and lead farmers of Panjshir and parwan provinces from PHDC, 30 participants on 16th of June 201. • Visit of NHLP regional staff and lead farmers of Kunduz and Baghlan provinces from PHDC, 30 participants on 30th of June 2013. <p>We had 5 group of 50 persons of each group visits of Kabul agriculture institute students from PHDC activities in Badam Bagh we have trained them as well as we provided to them all information about ANHDO, ANNGO and PHDP related activities for improvement of perennial horticulture of the country.</p> <p>MADERA and Mercy Corps 2 groups each group 20 persons field officer visited PHDC and during training program which was organized by ANNGO we have trained them especially on stool bed and mother stocks (MSN) management.</p> <p>On 3rd of June we have organized cherry fair in Badam Bagh 35 persons from MAIL,</p>
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		organizations and other related NGOs participated, they appreciated a lot our activities and recommend our project for the activates which we are conducting in the country.
4	PHDC Mazar	<p>National collection</p> <p>The below activities was achieved in the Almond and Apricot national collections:</p> <p>Apricot: Proper irrigation and weed control, Monitoring all trees regards to harmful pest and Treatment of wounds and gummosis area with Bordeaux paint. Fruit setup damaged by frost. Only 20 colons have 1 % fruits and general care.</p> <p>Almond: According to frost damage, except of 8 colon like: 6308, 6206, 6309, 4022, 4020, 6038, 4022 and 164, other colons damaged by frost and we can't see any fruits.bud burst and flowering stage of these colon were very late. Proper irrigation and weeds control. Field monitoring for the pest and disease. Application of 1% solution of washing powder against aphid in the Almond NC, but did not give positive result. Use of confidor to control aphids. Digging drainage canals at the end of almonds plots and general care. Proper irrigation, weed control and repairing of irrigation canals, monitoring all trees regards to harmful pest and disease, green pruning for initiate fruit spare for next year. Indication of brix and hardness and acidity of some colon for determining repining date, work on almond leaf, fruit and tree photo descriptor. Washing of almond trees with water and soap powder with water for controls of mites and general care of natural collections.</p> <p>Demonstration Orchards</p> <p>In the demonstration orchards of plum, peach, pomegranate, grape, pear and apple the following activities done during this quarter:</p> <p>Growing clover as intercrop for improvement of soil, proper irrigation and weeds control, improvement irrigation canals to facilitate irrigation, proper irrigation and weeds control, field monitoring for the pest and disease, about 98% of plum fruit set up damaged by frost and general, thinning of one row from each colon of peach to observe the rolls of thinning on quality and fruit size.</p> <p>All pomegranate colons affected by frost, from these, two colons like 6061 and 6053 are dried, this year we wouldn't have any pomegranate fruit,</p> <p>Application of the first and second phase of wet able sulphurs in the interval of 14 day to prevent of powdery mildews in grape vine. taking soil sample from Pear DO and carry it to soil lab for analyzing. Because one pear trees showing iron deficiency, hanging of weights on apple annual branch to manage the angle of branch with the main stem and general care. Green pruning of branch which was one meter lower to surface achieved, this procedure allowing air and light to all parts of the plants of grape demo and green pruning of others demos is started now.</p> <p>Nursery</p> <p>Weed control of almond mother nursery which is established in the 2012 and 2013 in the area of 0.5 Jerib and weed control of planted cutting of myrabolan, GF and grape. Green pruning of almond nursery at the height of 20cm above the land to be ready for budding in September.</p> <p>Plant protection Plant protection</p> <p>Application of 1% washing solution against aphid in almond, application of confidor in the proportion of 2ml/1000ml and pruning of water sprout to prevent aphids. Preparation of Bordeaux paint and treatment of wounds and gummosis spots.</p> <p>Application of the first and second phase of wet able sulfurs in the interval of 14 day to prevent of powdery mildews in grape vine in the proportion of 600gr/300liter/Jerib. Application of confidor in the proportion of 2ml/1000ml in almond to control aphids, Pruning of water sprout in Apricot and Almond NC to prevent aphids.</p>

		<p>Preparation of Bordeaux paste with the following proportion for control of gummosis in stone fruits. Treatment tree trunk s to prevent from insect eggs, fungi, scale and mites eggs.</p> <p>Application of a systemic fungicide (Axox trobin 75 ml/100 liter/Jerib) in the interval of 14 day to prevent of powdery mildews in grape vine. Washing Almond, plum and peach trees with water and 2 grams washing powder in 1 liter water.</p> <p>Interaction, collaboration, and partnership with other NGOs working in horticulture</p> <p>Participation in Agriculture sector meeting.</p> <p>Participation in pistachio and training workshop which held by AAEP and DAIL</p> <p>Participation in DAIL project coordination and planning (DPCP) meeting.</p> <p>Help for the practical training horticulture program of DACAR and student faculty of agriculture which came to visit Dehdadi PHDC.</p> <p>Explain the plant material certification scheme to GDA staff agriculture faculty DAIL extension worker and higher agriculture institute students, Facilitate for conducting the virus training workshop for MAIL EW, HLP EWs and AGRED. Participation in IPM training workshop which conducted by AAEP. Help for the practical training AAEP regard to grafting on date 11.6.2013 the number of participant were 35 people.</p> <p>Help for the practical training dependent to horticulture program of MAIL on date 15 June 2013. Under this program lead formers came from Samangan, jawzjan and Balkh province and visit Dehdadi PHDC the number of participant were 60 person.</p> <p>Help for the practical training of AKF on date 27.6.2013. Farmer and EW were from Baghlan province. Continues relation with IDEA -NEW regard to grape training.</p> <p>Northern Regional NHLP management team visited mazar PHDC and the interested to PHDC activates and promised to use of certificate sapling in their new orchard establishment program. And also promised for more collaboration and coordination.</p>
5	PHDC Kunduz	<p>National collection</p> <p>Mulching of almond and pear national collections, aphids control by chemical and mechanical control, weeds control, spraying herbicide to all raw of pear national collection, green pruning of almonds for branch shaping, proper irrigation and monitoring all trees regards to harmful pest and disease, continuation of mulching in the national collection of almond, apple and pear, aphids control by chemical, reap the intercrop by sickle, land preparation all raw of pear national collection by workers, green pruning of apples national collection and general care of all national collections. Mites control by washing of water and soap powder, reap the intercrop by sickle and taken the picture from almond nut, leafs, shape of all clones and fresh fruit for UPOV descriptor.</p> <p>Demonstration orchards:</p> <p>Proper irrigation and weed control, monitoring all trees regards to harmful pest and disease, mulching without grape demo, aphids control by chemical method, reap the weed by sickle, harvesting of peach Mycrest verity, fungicide use to grape and plum and general care of all demos, Second harvesting of peach and plum demos and handover the fruits to DAIL of Kunduz. Fungicides (wet able sulfur) spry to grape demo.</p> <p>Nursery</p> <p>Planting more than (1000) grape cutting in the PHDC of Kunduz, weeds control, fertilizer application and land preparations, soil application in the stole beds of apple and quince root stock and proper irrigation, control of pest and disease.</p>

		<p>Plant protection Monitoring and care of trees, consider to the some harmful insect and disease to control them with reasonable way and spraying pesticide to all trees. Spraying herbicide in pear rows. Aphids control by physical method and mite control by washing.</p> <p>Interaction, collaboration, partnership with other NGOs working in horticulture Participate in sector and monthly meeting and changing .some knowledge, and provide information about mulch significance. Provide information about fruit tinning and mulch significance in the dates of (4june and5june2013 for total 110 persons personal of MC come to research form to learning green pruning fruit thinning . our team prepared some facility for example introducing the NCs , DOs project activities, give allow to practical working for them. Fruit show and field Day. On date of 30 June13 for 45 persons</p>
6	PHDC Jalalabad	<p>National collection Controlled all the weeds in National Collections using herbicides. We have applied urea for the second round in all NCs, citrus, Pomegranate, Persimmon, fig and loquat. All routine activities have been done on time in all NCs. Some trees shown to be infected with fungal diseases but controlled with fungicide on time so the trees are very happy and healthy. Application of iron chelate to the national collection of citrus, drip irrigation system removed from the two lines of citrus national collection, whitewash of citrus plant trunks; beside all routine tasks we have applied humus and a little amount of N fertilizer to all plants in the net house, application of fungicides in net house. Plowed back the persimmon collection land and improved the irrigation system. There was alfalfa as cover crop in the field but the cover crop was hazardous to our plants instead. Jalalabad is very humid in some months of summer and the cover crop was increasing the humidity in the orchard on the other hand this alfalfa was a good habitat for insects. Finally we decided to give up using cover crop in all our fields. Some saplings in the citrus net house have been infected with citrus phytophthora gummosis. We have studied this disease and found the chemicals best work against this disease. We have applied those chemicals and we will see the result. The bio technology lab is importing some indicator plants of citrus and they have requested PHDC-JAL to keep and raise these indicators in PHDC-JAL under a net house. We already had a simple construction for green or net house and the lab rehabilitate that net house for these indicator plants. We are getting ready for fig UPOV characterization. The DL is developed but we just practice the DL if we are able to record the description in the right way. Next month we will start to practically do the characterization by the help of some students from University.</p> <p>Demonstration orchards We have plowed back and improved the irrigation system of the citrus rootstock DO. At the end of April the earliest peach variety was ready for market. Plawhite has shown itself to be the first ripening peach variety in the area. Stone fruit demonstration: in stone fruit demonstration orchard we have three species plum, apricot and peach. Among these species we have some very early varieties of apricot and peaches which can bring satisfactory benefits to the fruit growers of the east. Since the early varieties require warm weather to bear fruit ready for market ahead of any other variety. In eastern zone we have a large area with very warm climate so it is the best place for those early fruit crops which have a good market for instance peaches, apricot, grapes and etc...To promote these early varieties we have organized a field day and then distribute fruit to higher officials such as Minister,</p>

	<p>Governor, Director of agriculture and whitewash of stone fruit trees trunks.</p> <p>Stone fruit assessment: We have done visual and lab assessments of peach and apricot fruits of the stone fruit demonstration orchard.</p> <p>Citrus rootstock trial: We have applied iron chalet to citrus plants to overcome the iron deficiency and the irrigation system in the citrus rootstock DO was not suitable for summer condition of Jalalabad so we modify its irrigations system where the saplings are very happy with the current irrigation system. To control weeds we used Round-up together with 24D, only Round-Up couldn't control all the weeds in this DO because there was a type of weed can't completely controlled by Round-Up thus we used these two chemicals together and the result is satisfactory.</p> <p>We need to install the T-system and its supporting wires to the grape DO trellis soon. Because we have lost most of the new growths since the growing shoots were very fragile and there was no support so they break of the vine. However we have tied some of the shoots to the cordon wire. Last year we have established a vineyard of two early American grapes the Flame Seedless and Black Emerald. This year they bore some bunches of fruit which were very early ripened. We hope that grape production will be very good in eastern Afghanistan if we have commercial vineyards properly planted and managed. The production of some grapes will be very good and very early in the east which will have very good price in the market. However it was the first year of production in the grape vineyard but still we have assessed some parameters such as brix, pH and acidity.</p> <p>Nursery</p> <p>We have handed over the citrus seed mother trees to MADERA for Laghman NGA citrus seed MSN. We have grafted more or less 1000 citrus rootstocks with the highly recommended varieties, these saplings will be used next spring in establishment of new MSNs and DOs. We have established a nursery of Volkamer seedlings. These seedlings will be ready for grafting next year and the year after (2015) the saplings will be distributable to MSNs and DOs. All routine tasks have conducted on time such as irrigation, weeding pest management, grafting and others, transplanting Volkamer seedlings to the nursery: These seedlings will be grafted with highly recommended varieties of citrus and the saplings will be distributed to MSNs and Dos and Grafting Troyer and Volkamer rootstocks with highly recommended varieties of citrus.</p> <p>Plant protection</p> <p>Controlling Psyllid in citrus DO and NC periodically. We have been using herbicide to control weeds rather than hand weeding. The result is really satisfactory and it is the most effective way of weeds control in orchards. In citrus net house we found two trees infected with citrus blast disease and the problem has been controlled with systemic fungicide. Controlling aphids in stone fruit DO.</p> <p>Spraying Difenconazole fungicide in grape DO to control Powdery and Downy mildew, spraying Cofidor (Imadichloprid) in citrus NC to control leaf miner, round Up spray in citrus, persimmon, loquat, fig and date palm NCs to control weeds, copper oxichloride spray in net house of citrus, pomegranate and citrus nurseries to control fungal diseases and controlled caterpillar in citrus NC by spraying Laser insecticide.</p> <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <p>20 Students got full information about their seminars (the last year assignment) from PHDC-JAL.</p> <p>Teachers and students of Nangarhar and Sorkhakan (Laghman) agriculture institutes</p>
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	<p>visited the farm several times.</p> <p>AAEP staff visited the farm and then organized a two days training on citrus management for extension agents of Nangarhar DAIL. The second day of the training was lead by the FH of PHDC-JAL.</p> <p>NVDA staff has been briefed on how to tag and collect samples for CTV test.</p> <p>Training manager of Mercy Corps unofficially visited the farm.</p> <p>PHDC-JAL organized a field day organized for University students in the farm.</p> <p>Mr. Obaidi MAIL research director together with his colleagues visited the farm.</p> <p>ANHDO board visited PHDC-JAL. The board has been briefed by FH the whole farm activities and achievements.</p> <p>MADERA organized training for NNGA members under nursery management subject and another training for MSNs and DOs owners on orchard management.</p> <p>PHDC-JAL organized IPM training for university students.</p> <p>We have prepared a video clip of citrus T-budding. The video is to be distributed among students and nursery growers and other people who might need it.</p> <p>Interviews with Nangarhar and National radio television of Afghanistan: the interviews were based on PHDC-JAL's activities and achievements in particular the early varieties of fruit.</p> <p>Laghman Vocational Institute's teachers and students have a field visit of PHDC-JAL.</p> <p>PHDC-JAL organized training on orchard layout and design for faculty students of Nangarhar University.</p> <p>Senior Agriculture advisor of USDA Mr.Eric visited our farm together with Mr.Safi agriculture director. Mr.Eric was really impressed by the activities and programs of the center and the whole program.</p> <p>Four organizations MADERA, Roots of Peace, NVDA and IDEA-NEW each collected 500 citrus samples for CTV test. In this mission in total 2000 citrus samples have been collected and transferred to bio technology lab in Kabul Badambagh. Beside sample collection the lab staff organized training for faculty students on virus indexing in PHDC-JAL.</p> <p>MADERA organized a practical training for Nangarhar NGA members on ANNGO standards where the field horticulturist assisted the training.</p> <p>Roots of Peace organized a visit for its staff and some farmers of the area to PHDC-JAL. Almost 30 people visited the farm in this visit. The visit was focused on orchards management.</p> <p>This quarter we had more or less 450 visitors including the students came for trainings.</p> <p>10/June/2013 Gul Karim an ex-commander and an orchardist of citrus and other fruits visited our farm for the early varieties of stone fruit. This group consists of 20 people.</p> <p>18/June/13 MADERA organized a visit for 30 people from Kunduz, Baghlan and other province to PHDC-JAL.</p> <p>22/June/13 IDEA-NEW organized a field visit in PHDC-JAL for 20 people from Badghis province the group consists of farmers, extension workers and university teachers.</p> <p>30/June/13 MADERA organized training for 35 Nangarhar NGA members on MSN management in particular taking buds from MSNs</p>
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7	PHDC Herat	<p>National collection</p> <p>Real problem in grape national collection with frost period. Major changes in weather occurred during March month. Temperatures, varied from freezing to as high as -10 degrees. Some vines is throwing out a shoot at the end of the one year old cane, then logically there must be some life further back in the cane, Deep watering all grapevines to encourage suckers for developing.</p> <p>This year green aphid is big problem in all orchards and it was same for peach national collection which is start during flowering time and spraying during this stage is not recommended because we should protect bees for helping pollination in orchard. Controlling weeds begin by spraying Round Up herbicide with 10-15/1000cc to improving in efficiency and reduction of farm costs. Broadcast fertilizers in a ring around each tree and keep fertilizer away from base of trees.</p> <p>In peach national collection monitoring from maturity of varieties in collection. We harvested clone 805 AWAL RAS SAFID on 19 May and Clone 293 AQUILI on 26 May. Fruit assessment data also is collected for evaluation of varieties. The main insect problems are green aphids, which have been treated by applying insecticides. 37 Clone tolerant, 55 Clone middle and 17 Clone were sensitive to green aphid.</p> <p>In plum national collection for assessment of self compatibility of plum, self pollination trial was completed; the result 20 Clone are self pollination, 16 Clone are open pollination, 40 Clone don't had enough flower and not clear yet. Weeds have been controlled. Monitoring of cherry national collection from maturity of varieties in collection. Surveyed cherry/sour cherry labels. We made contact with pistachio research institute of Iran for importing certified bud wood of pistachio but we didn't receive any answer yet.</p> <p>Demonstration orchards</p> <p>Pruning of shoots close to main central leader of apple rootstock trial. Spraying non systemic chemical for controlling of green aphids. Controlling weeds begin by spraying Round Up herbicide with 10-15/1000cc to improving in efficiency and reduction of farm costs of peach and almond rootstock trials and plum demo.</p> <p>Fruit thinning is completed in apple rootstock trial and irrigation and weed control by chemical already done, spraying non systemic chemical for controlling of green aphids in peach and almond rootstock trials and plum, apricot and pear demonstration orchards. Green pruning of apple, peach, plum, apricot and pear demonstration orchards. Continue regular watering and weed control.</p> <p>Nursery</p> <p>We received 100 seed of UCB#1 pistachio rootstock from USA establishment pistachio nursery with UCB#1 rootstock. We sow seed on 96 black plastic pots in farm. The others nurseries of grape, peach was irrigated and weeds controlled regularly.</p> <p>Plant protection</p> <p>This year green aphid is big problem in all orchards and it was same for peach national collection which is start during flowering time and spraying during this stage is not recommended because we should protect bees for helping pollination in orchard. After petal fall stage we started spraying with non systemic insecticide because in Herat market we systemic insecticide are not popular and not available. Also for control against aphid we make mixture of chopped garlic cloves, mineral oil, pure soap and water. Collecting sample of soil for analysis of fungus and nematode</p> <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <p>Mr. Giuliano Ramat, Project Coordinator, Italian Cooperation, Herat introduction of</p>
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8	PHDC Kandahar	<p>National collection</p> <p>All six (grape, pomegranate, peach, plum, fig and loquat) national collections were regular irrigated and the same time urea fertilizer was applied in peach, plum, grape and fig national collections.</p> <p>The flowering date data of grape and pomegranate national collections were recorded and also the Imidacloprid pesticide was applied in peach, plum and pomegranate national collections and for weed control the roundup herbicide was applied in all part of plum and grape national collections and for soil fertility and improvement the clover cover crop was sew in about 3 Jeribs free land area and also as inter crop sew among the plum, fig and pomegranate national collections areas. And green pruning of grape national collection was done and its sprouts were removed and the same time suckers of pomegranate national collection were removed. In the stems of peach, plum, pomegranate and loquat NCs as well as the Pomegranate and Almond Do trees were white washed against sun burnt and to prevent from some pest and disease attacks on theirs stems.</p> <p>Flowering date data collection of grape and pomegranate NCs were recorded and flowers UPOV assessment 18 clone of grape NC was done and also fruit UPOV assessment one clone of peach and 7 clone of plum national collections was done</p> <p>And the super top insecticide was applied 1.5cc/li water against Cutter phailer in Fig NC and wettable sulphure 1,5gr/1 liter water was applied in grape NC as well as in grape NC for to control the powdery mildew and also it was applied in loquat NC and Fenopyroximate acaricide was applied in plum NC and it dose was 0.5cc/1li water and for weeds control the roundup herbicide 14cc/1li water was applied in peach NC as well as in a half part of grape NC.</p> <p>Green pruning of grape national collection for the propose of having good aeration and fenestration in canopy was done and al so summer pruning of plum and peach national collection was done for to incur age trees for the next year fruit buds and spurs production and also sprout and suckers of pomegranate national collection was removed and also the fruit of half part of the pomegranate national collection were covered with paper mad bags for to prevent fruit from sun scaled as well as attack of some kind of pest and diseases.</p> <p>12 early varieties of our grape and 14 clones' plum national collections were harvested and the table grape was presented to the provincial level agriculture sector meeting participants for test and selection of the best varieties.</p> <p>Demonstration orchards</p> <p>The new large branches of grape demonstration orchard was tighten on T trellis for to</p>

	<p>prevent from breaking by windblown and also the wooden sticks were installed in new grape demonstration orchard and the clover cover crop was sown for soil fertility as intercrop in new grape demonstration orchard and also Bioseterene was applied in grape demonstration orchard for to control the Iron deficiency.</p> <p>In grape, pomegranate and almond demonstration orchards were regular irrigated and its weeds were mechanically controlled and the same time its pest and diseases were controlled on time and the three Jeribs clover cover crop were plugging in to improve the farm soil profile and fertility.</p> <p>Nursery</p> <p>The soil quality of grape, pomegranate and Fig cuttings nurseries was not good because while the coalition forces were settled in mentioned areas and the surface soil was removed by them and the result the soil profile was badly damaged so for earth was added in all 3 nurseries. In the nurseries of grape, pomegranate and was regular irrigated and the earth was added for to improve the soil quality and fertility. Regular mechanical weed control of Grape, pomegranate and fig nurseries.</p> <p>Plant protection</p> <p>For pest control of peach, Pomegranate and plum national collections the Imidacloprid pesticide was applied and also for controlling of Iron deficiency of grape demonstration orchard the Bioseterene and liquid fertilizers were applied.</p> <p>For pest control the super top insecticide was applied 1.5cc/li water against cutter philer in Fig NC and wettable sulphure 1.5gr/1 li water was applied in grape NC as well as in grape DO and Hexaconazole fungicide was also applied in grape DO as well as in grape NC for to control the powdery mildew and the same time it was applied in loquat NC and the Fenopyroximate acaricide was applied in plum NC and its dose was 0.5cc/1li water and for weeds control the roundup herbicide was applied 14cc/1li water in peach NC as well as in half part of grape NC and for controlling of Iron deficiency of grape demonstration orchard the Bioseterene was applied 2cc/1li water.</p> <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <p>Meetings were held with Mr. Habiburahman Irfan regional research coordinator of AGREED, agriculture sector meetings</p> <p>On date 05.05.2013 around 60 faculty students with their lecture man of Kandahar university visit our farm and they receive enough information about the 6 present national collections as well as 4 demonstration orchards and objective of ANHDO and the same time in each part of visit their questions were replied with reasonable answers and the result they were very happy about the PHDC Kandahar work and its result and they said thanks full for to provide the farm visit opportunity.</p> <p>On date 18.05.2013 the first field day and exhibition of the early varieties of peach fruit was organized and total 40 people (10 from NGA, 6 from NGO, 7 from agriculture faculty, 7 from MAIL and 9 orchard owners and farmers were taken part.</p> <p>On date 20.05.13 field horticulturist took part in one day training by the topic of the maize cultivation new method which was organized by AGREED.</p> <p>On date 29.06.2013 the field horticulturist took part in provincial level agriculture sector meeting and then the first quarter year 1392 activities report PowerPoint in Pashtu language was presented and the result it was not only accepted but it was appreciated by the participants. And the same time the 12 early clone of our grape national collection grape were presented to the participants for to test by the meeting participants for to get their recommendation about each tested clone.</p>
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