



CHEMONICS INTERNATIONAL INC.

# HIGH-VALUE AGRICULTURE ACTIVITY YEAR 2 ANNUAL REPORT

October 2017 – September 2018

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**HIGH-VALUE  
AGRICULTURE ACTIVITY**

**YEAR 2 ANNUAL REPORT**

October 2017 – September 2018

**CONTRACT NO. AID-117-C-17-0001**

**USAID COR: RODICA MIRON  
CHIEF OF PARTY: CYNTHIA STEEN**

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## ACRONYMS

AITTF	Agricultural Innovation and Technology Transfer Fund
ANSA	National Food Safety Agency
APESM	National Table Grape Producers and Exporters Association
APSM	Table Grape Producers Association
B2B	Business to Business
BoM	“Berries of Moldova” Association
CEO	Chief Executive Officer
CIS	Central Irrigation System
COR	Contracting Officer's Representative
EU	European Union
FF	Family Farm
FY	Fiscal Year
GAP	Good Agricultural Practice
GLOBALG.A.P.	Global Good Agricultural Practice (voluntary standard managed by FoodPlus)
GRASP	GLOBALG.A.P. Risk Assessment on Social Practice
HEKS-EPER	Swiss Church Aid Office in Moldova
HVA	High Value Agriculture
HVAA	High Value Agriculture Activity
IEE	Initial Environmental Examination
IPM	Integrated Pest Management
JSC	Joint Stock Company
LLC	Limited Liability Company
MARDE	Ministry of Agriculture, Regional Development and Environment
MCC	Millennium Challenge Corporation
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MFA	Moldova Fruct Association
MIEPO	Moldova Investment and Export Promotion Organization
MoU	Memorandum of Understanding
NBARM	National Beekeepers Association of the Republic of Moldova
NGO	Non-Governmental Organization
NVS	Nisporeni Vocational School
OCA	Organizational Capacity Assessments
PERSUAP	Pesticide Evaluation Report and Safer Use Action Plan
PHH	Post Harvest Handling
PIRS	Performance Indicator Reference Sheet
PMEP	Project Monitoring and Evaluation Plan
SOW	Scope of Work
STTA	Short-Term Technical Assistance
SEMP	Sector Export Marketing Plan
ToT	Training of Trainers
UAE	United Arab Emirates
USAID	United States Agency for International Development
WUA	Water Users Association

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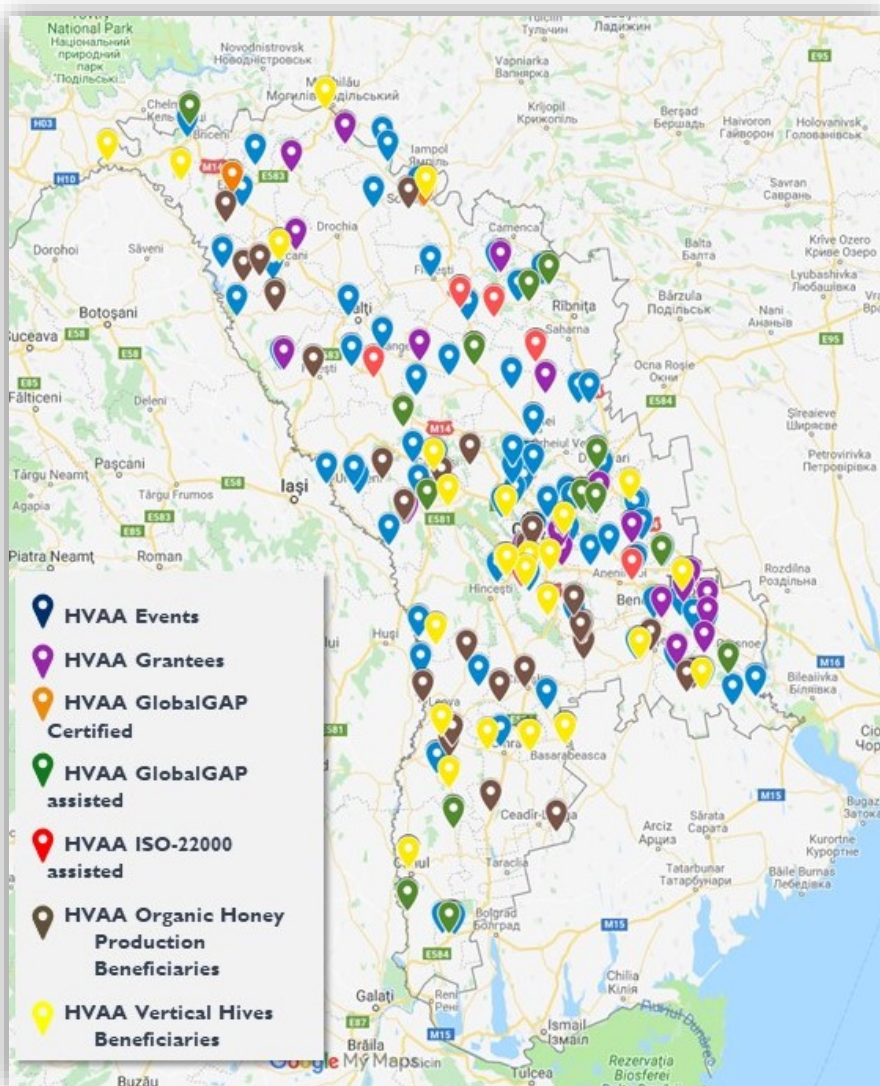


## EXECUTIVE SUMMARY

Chemonics International Inc. is pleased to present the Year 2 Annual Report for the USAID High Value Agriculture Activity (HVAA), which covered the period from October 1, 2017 through September 30, 2018. The high value agricultural sector in Moldova has enormous potential to be a driver for economic growth in the country. HVAA is supporting five value chains (apples & stone fruits, table grapes, berries, open-field vegetables, and honey) to address issues related to production, post-harvest handling, marketing, the enabling environment, strengthening member-based organizations, and preparing a workforce that will help transform the sector.

During the reporting period, HVAA assisted stakeholders through 328 events with a total number of 4,280 participants from over 1,500 new firms and farms. Y2 project activities led to 27.4 million USD in sales facilitated, and Moldovan products reached destinations including Belgium, Germany, Poland, Romania, the United Kingdom, and the United Arab Emirates. HVAA assisted 13 businesses to obtain critical international certifications that will open doors to higher paying markets, and begin transitioning Moldovan exports away from traditional, unreliable markets, such as Russia. The project launched comprehensive production- and post-harvest-level training programs in each of HVAA's target value chains, which trained an additional 1,346 unique producers in Y2. During Y2, the project used interventions through technical assistance and its

Agricultural Innovation and Technology Transfer Fund that led to 621 producers adopting improved techniques or technologies that will help them grow their businesses, which totals 873 producers cumulatively since the project's onset. New private sector investment totaled \$11.03 million, and businesses are regularly working to improve and prepare for new market opportunities. HVAA worked with sector stakeholders to draft 4 new policies, laws, and regulations, which promote a better enabling environment for agricultural businesses. Finally, the project brokered 12 new partnerships valued at 1.31 million USD, which are founded on shared values between organizations to tackle some of the most difficult sector challenges. Below is a visualization of Y2 project activity distribution and summary of key events and activities.







# HIGH VALUE AGRICULTURE ACTIVITY (HVAA)

Agriculture is a driving force in Moldova's economy, contributing 10–12 percent to the gross domestic product (GDP), and employing 26–28 percent of the labor force. The agriculture sector has faced many challenges due to trade restrictions imposed by Russia and declining purchasing power of other traditional markets. Moldovan farmers need to diversify into new markets and capture opportunities in the EU created through the EU-Moldova Association and Deep Comprehensive Free Trade Agreement (DCFTA).

HVAA assists selected value chains to promote practical knowledge and experience in best agriculture and post-harvest handling practices and engaging buyers in target markets. By enhancing competitiveness within the apple and stone fruit, table grape, berry, vegetable and honey sectors, Moldovan producers are increasing sales volumes and profitability in local and international markets. In collaboration with relevant Ministries, agribusinesses, farmers, sector associations and other partners, the HVAA project cultivates a modern agriculture sector that increases rural prosperity, thereby improving the economic well-being of all Moldovans.



## KEY FACTS - HVAA TARGETED VALUE CHAINS

### APPLES & STONE FRUIT

- Over 105,000 hectares of orchards are registered in Moldova.
- The industry is the largest employer in the rural areas of Moldova, represented by more than 40,000 growers.
- Annual fruit farmgate value is estimated at \$80 million, and exports at \$130 million.
- Fruit production has registered a 36% increase over the last two years.

### TABLE GRAPES

- More than 19,500 hectares of table grapes are registered in Moldova.
- Annual production has recorded steady increases – up to 110,000 tons in 2017.
- 85,000 tons were exported to 20 countries in 2017. In the marketing season 2017-18, the exports to EU increased to 16,000 tons vs. 2,000 tons in 2013.
- Innovative technologies, such as pergola/gable trellis systems, implemented with HVAA support, will quadruple the table grape harvest.

### BERRIES

- 3,500 hectares of berries are registered in Moldova.
- Berry production has doubled during the last two years and has increased 10 times over the last five years.
- 85% of berries are consumed on the local market.
- Moldova exported \$2,2 million worth of fresh berries in 2017.
- New berry varieties, with higher and multiple annual harvests, are being tested with HVAA support.

### VEGETABLES

- Over 57,000 hectares of vegetable production.
- Over 60 species of greens and vegetable crops are cultivated in Moldova.
- Over 310,000 tons of vegetable were produced in 2017. 96% are sold on the local market. Up to 17,000 tons are sold for processing.
- There are opportunities to develop the vegetable sector in the areas with rehabilitated irrigation system funded by the U.S. MCC program.

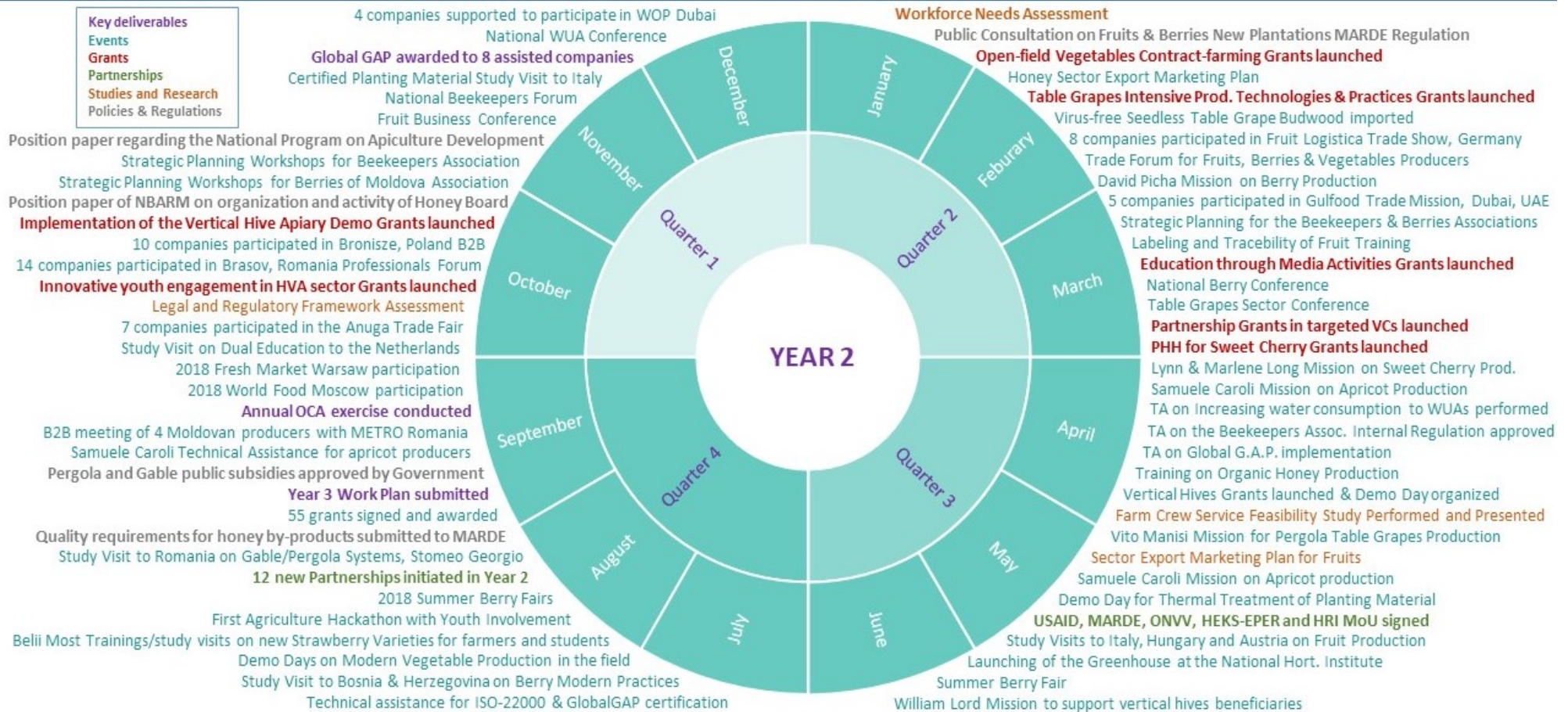
### HONEY

- Over 7,000 beekeepers are registered in Moldova; many are transitioning from beekeeping as a hobby to a business.
- Honey is the only product of animal origin that is exported to the EU as it meets EU third country import requirements.
- Honey exports increased the last 10 years - from 245 tons in 2006 to 5,000 tons valued at \$15 million in 2017.
- The EU is currently the main market for Moldovan honey.



# HVAA Events & Activities Year 2

- Key deliverables
- Events
- Grants
- Partnerships
- Studies and Research
- Policies & Regulations







Development of the strategic Sector Export Marketing Plans for the fruit, table grape, and honey sectors helped HVAA and the private sector to identify the main gaps and opportunities for expanding export of Moldovan products and increasing sales for local farmers during Year 2. HVAA provided targeted assistance to export-ready companies to access prioritized markets. The project's efforts have focused on increasing sales and diversifying to new markets through many promotional activities such as supporting international trade fair participation, facilitating B2B events, and initiating critical relationship building with identified buyers.

## **SECTION I: PROJECT ACCOMPLISHMENTS BY OBJECTIVE**

### **OBJECTIVE 1: EXPAND AND STRENGTHEN LINKAGES TO DOMESTIC, REGIONAL, AND INTERNATIONAL MARKETS FOR TARGETED VALUE CHAINS**

During Year 2, HVAA continued to broker linkages to foreign markets with a focus on reorienting businesses from unreliable, traditional markets, and facilitating greater export readiness for the EU and other non-traditional destinations, such as the Middle East. To ensure that appropriate local institutions play a central role in market access and promotion interventions, HVAA signed a Memorandum of Understanding (MoU) with the Moldova Investment and Export Promotion Organization (MIEPO) in Year 1, which detailed the two organizations' commitment to achieve their common goals by:

- Identifying market research priorities for the HVA sector;
- Developing and/or sharing market information or studies;
- Supporting industry associations and/or private companies to participate in international trade shows and trade missions; and
- Organizing joint fora to promote public-private dialogue and an improved enabling environment for both foreign and domestic investors.

During Year 2, HVAA awarded grant funding to MFA for marketing initiatives that trained businesses on best practices for establishing international contracts and brought dozens of organizations to critical trade exhibitions around the world. Grant funding was coupled with direct technical assistance from HVAA, and



MIEPO awarded additional funding for discrete activities. Highlighted marketing initiatives with HVAA-MFA-MIEPO collaboration include the following:

- 10 Moldovan companies showcased products in a country-level exhibition stand under the “Moldova – Taste Makes the Difference” brand at World Food Moscow (September 2017). The event resulted in \$14 million in sales, including a contract for apples to Belgium.
- Seven Moldovan companies attended and showcased their products at the Anuga Food Fair in Cologne, Germany, between October 5-9, 2017. During the Food Fair, Moldovan honey, dried fruit and nut producers, as well as fruits and vegetables processors, established valuable connections with more than 380 potential buyers from around the world.
- Co-organized by HVAA, MIEPO, and HEKS-EPER, ten table grape producers and exporters participated in a B2B event at Bronisze wholesale market in Warsaw, Poland. During the event, Moldovan producers met with Polish importers and retailers to discuss potential contracts for the “Moldova” table grape variety. As a result, a Moldovan producer closed a deal and delivered 180 tons of table grapes to Poland valued at \$182,000.
- Moldovan fruit growers exhibited fresh and processed fruit during the World of Perishables 2017 International Exhibition, held on December 5-7, 2017 in Dubai, United Arab Emirates (UAE). Product samples were delivered to several retailers operating in the region. Following the fair, FructBiolmpex Cooperative from Costesti sent a pilot sea container of table grapes to a customer in the UAE, which arrived in very good condition after a month at sea. This success will lead to a larger supply program for the 2018/19 marketing season.
- HVAA supported 15 representatives of Moldovan fruit businesses to attend the “Fruit & Vegetables: Forum of Industry Professionals” in Poiana Brasov, Romania on November 15-16, 2017. During the event, Moldovan exporters and MFA representatives met with several major Romanian retailers to discuss possibilities to expand existing relations and establish new contracts.

The reorganization of the Government of Moldova and its agencies led to uncertainties about the level of funding for MIEPO’s Export Promotion Fund, and this resulted in MIEPO withdrawing its sponsorship of the country exhibition stand under the “Moldova – Taste Makes the Difference” brand at Gulfood (Dubai, UAE) and FRUITLOGISTICA (Berlin, Germany). As these events were strategic platforms to connect Moldovan exporters to major export markets, HVAA provided a grant to MFA that supported trade missions to both events. At FRUITLOGISTICA International Exhibition (February 7 – 9, 2018) in Berlin, Germany, eight fruit exporters attended the event and later visited the Berlin Wholesale Market to become familiar with the variety of products being offered and market requirements.

At the Gulfood International Exhibition (February 18 – 22, 2018) in Dubai, UAE, three fruit exporters, one walnut exporter, one honey exporter, and two MFA representatives showcased products. Participants met with various buyers during pre-scheduled meetings and visited the local wholesale market to become familiar with the variety of products being offered, as well as the quality and the origin of fresh produce in the Dubai market.

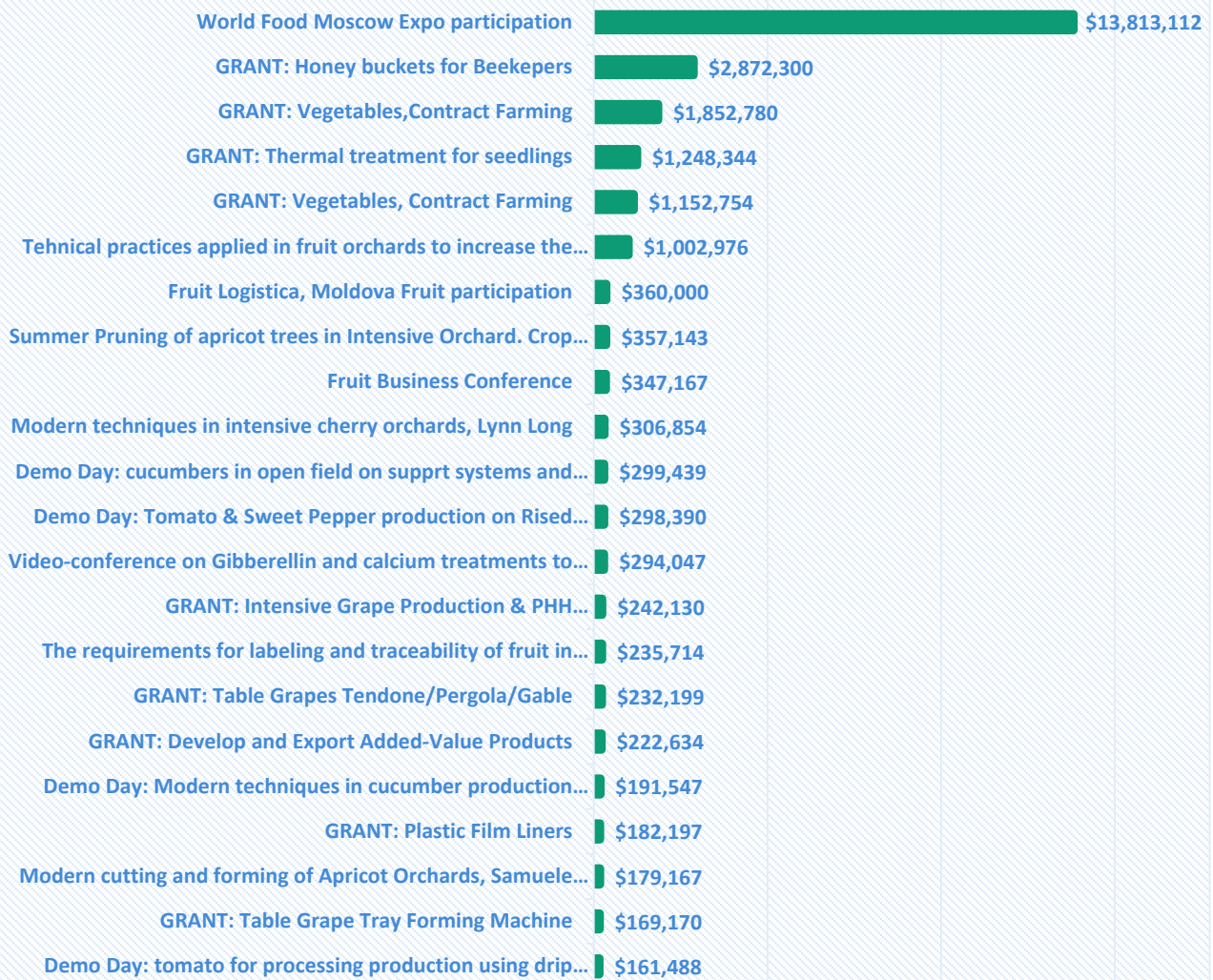
## Trade Shows and Business-to-Business (B2B) participation during Financial Year 2018 (FY18)

<i>Date</i>	<i>Event</i>	<i>Total no. of participants (people)</i>	<i>Female participants</i>	<i>Youth participants</i>
<i>October 7, 2017</i>	Anuga Trade Show, Koln, Germany	7	14%	14%
<i>November 14, 2017</i>	Bronisze B2B, Poland	10	30%	30%
<i>November 16, 2017</i>	Professionals in Fruits and Vegetables Industry Forum, Brasov, Romania	14	21%	57%
<i>December 7, 2017</i>	World of Perishables Dubai, UAE	4	0%	25%
<i>February 7, 2018</i>	Fruit Logistica, Berlin, Germany	9	11%	44%
<i>February 16, 2018</i>	Trade Forum for Vegetables, Fruits and Berries (Domestic)	87	23%	30%
<i>February 18, 2018</i>	Gulfood, Dubai, UAE	5	40%	20%
<i>June 24, 2018</i>	2018 Summer Berry Fair 1 (Domestic)	13	23%	15%
<i>July 22, 2018</i>	2018 Summer Berry Fair 2 (Domestic)	11	36%	9%
<i>August 12, 2018</i>	2018 Summer Berry Fair 3 (Domestic)	13	31%	15%
<i>September 17, 2018</i>	2018 World Food Moscow, Russia	15	13%	47%
<i>September 26, 2018</i>	Strategic meeting of 3 Moldovan producers with METRO Romania	3	0%	67%
<i>September 27, 2018</i>	2018 Fresh Market Warsaw, Poland	5	0%	100%

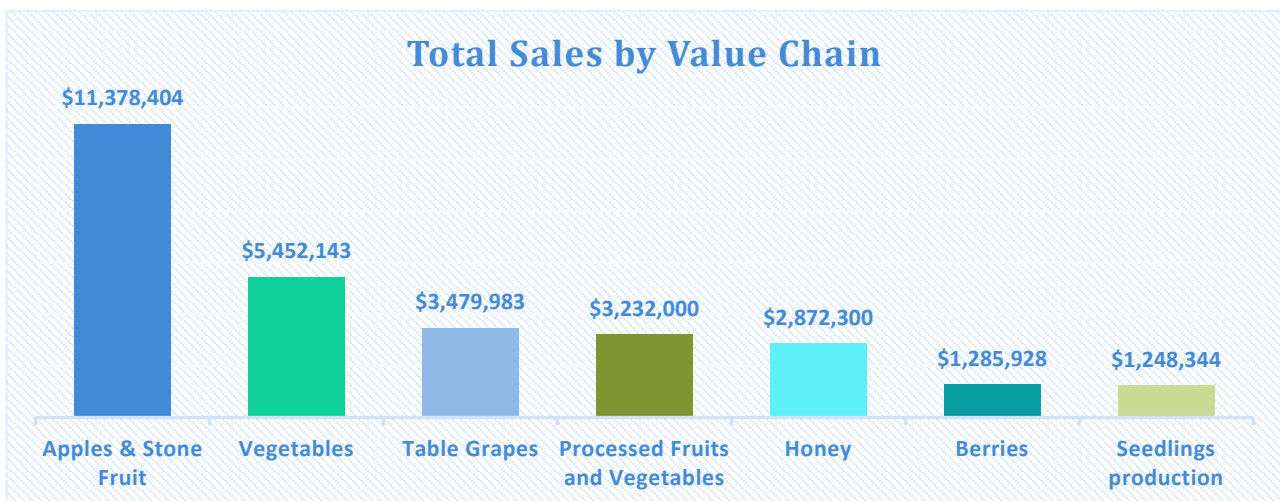
The events in the table above, along with the technical assistance of international consultants and project experts resulted in \$27.4 million in sales during Year 2. The largest sales allocations by activity are presented below:



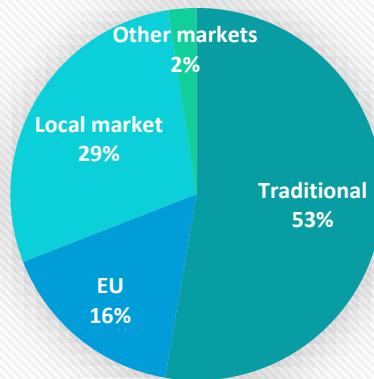
### Largest Sales by Activity



Cumulative sales to date distributed per value chain are shown in the chart below:



## Sales by Destination Market



USAID’s market development and diversification initiatives in the Moldovan HVA sector, as well as quality improvement activities, have been successful as demonstrated by export statistics data. For example, table grape exports to the EU increased by 53 percent compared to the previous season, and fresh plums saw an increase of 143 percent. For both crops, the exported volumes significantly surpassed the 10,000 tons duty-free quota under the EU-Moldova Association Agreement.

Markets	2017 Sales Season in Tons Exported (Jul-Jun)				2016 Sales Season in Tons Exported (Jul-Jun)			
	Apples	Plums	Grapes	Total	Apples	Plums	Grapes	Total
Traditional	223,933	33,689	58,863	316,485	135,386	28,597	41,087	205,070
EU	8,212	17,332	18,459	44,003	227	7,141	12,062	19,430
Others	179	267	2,582	3,028	1,163	565	1,605	3,333
<b>TOTAL</b>	<b>232,324</b>	<b>51,288</b>	<b>79,904</b>	<b>363,516</b>	<b>136,776</b>	<b>36,303</b>	<b>54,754</b>	<b>227,833</b>
Traditional	96%	66%	74%	87%	99%	79%	75%	90%
EU	4%	34%	23%	12%	0%	20%	22%	9%
Others	0%	1%	3%	1%	1%	2%	3%	1%

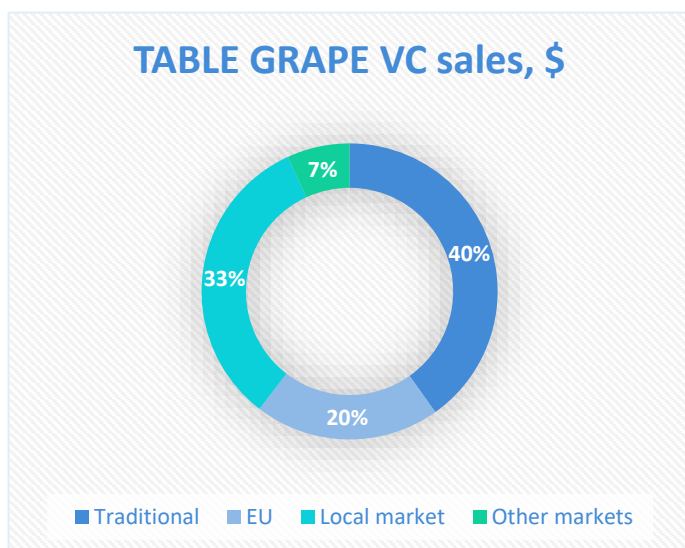
### TABLE GRAPE VALUE CHAIN

During Year 2, HVAA worked with the National Table Grape Association (APESM), HEKS-EPER, and leading table grape exporters to plan marketing activities for strategic exports to Poland. During November 2017, a group of ten table grape producers and exporters participated in B2B event at Bronisze Wholesale Market in Warsaw, Poland, which resulted in an unprecedented platform for Moldovan table grape producers to showcase their grapes in Poland. During the event, Moldovan producers met with Polish importers and retailers to discuss potential contracts for Moldovan table grape varieties. With HVAA grant funding for improved packaging solutions, one Moldovan producer closed a deal and delivered 180 tons of table grapes to Poland valued at \$182,000. Several participants were reported to be actively engaged in negotiations with



the Polish buyers, and a total of 300 tons were shipped to Poland due to this marketing initiative. Similar activities will be organized during Y3.

HVAA supported Moldovan exporters during the World of Perishables Trade Fair to establish critical linkages with buyers in non-traditional, high paying Middle Eastern markets. As a result, an HVAA beneficiary sent a pilot shipment of 20 tons of table grapes to the UAE in January 2018. The contract for these grapes was twice as high as prices offered by Russian retailers, rendering the pilot activity a critical step for Moldovan exporters.

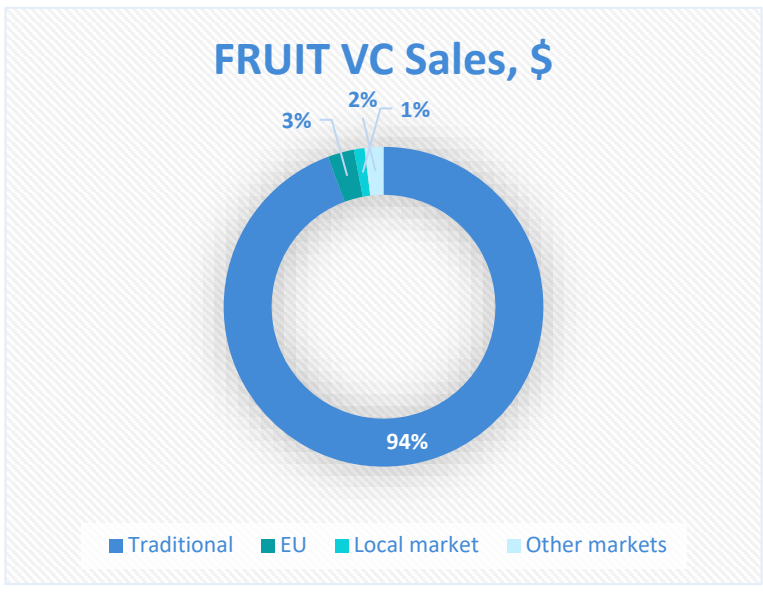


DESTINATION MARKET	TABLE GRAPES & PLANTING MATERIALS SALES, \$
TRADITIONAL	\$1,899,204
EU	\$957,914
LOCAL MARKET	\$1,547,699
OTHER MARKETS	\$323,500

As a follow-up to the Table Grape Sector Export Marketing Plan (SEMP) workshops, HVAA provided continuous support to a group of four exporters to target the November 2018 - January 2019 market window in Spain with a preliminary program of approximately 400 tons of Moldovan table grapes. Through the grant activity with Table Grape Producers Association (APSM) Cahul, HVAA procured and delivered plastic liners and SO2 pads to the group as part of an initiative to implement a common quality management system covering production, storage, and packaging practices that meet Spanish buyer demands. Although the intensive rains in early September 2018 seriously compromised the quality of Moldovan grapes, the group still plans to carry out shipments to the identified market, potentially in smaller volumes. Models such as these are reflective of HVAA's success in promoting consolidation and greater cooperation between committed businesses to increase competitiveness in non-traditional markets.

### APPLE & STONE FRUIT VALUE CHAIN

For the 2017/18 marketing season, total apples and stone fruit sales facilitated through HVAA export market development activities amounted to \$11.4 million, of which .5 million in exports were to EU countries or other non-traditional markets. As pilot shipments gain momentum, HVAA will continue to broker lasting relations between committed producers and buyers and will prepare producers to meet market demands. Seeing is believing, and the project anticipates that a greater number of producers will follow suit and begin shifting to new markets during project implementation.



DESTINATION MARKET	FRUIT SALES, \$
<b>TRADITIONAL</b>	\$10,736,631
<b>EU</b>	\$303,331
<b>LOCAL MARKET</b>	\$122,442
<b>OTHER MARKETS</b>	\$216,000

Despite the encouraging successes in its Year 2 activities, HVAA and its partners also recognized the need for better market prioritization among all value chain stakeholders. In December 2017 – February 2018, HVAA and the USAID Regional Economic Growth Project led a participatory process for the development of SEMP for the table grape and honey value chains. Between April – June 2018, the same process was carried out for the fresh fruit sector in partnership with MFA.

The overall objective of developing SEMP is to establish a strategic export promotional platform and a coordinated approach between all value chain stakeholders (growers, consolidators, exporters, industry associations, relevant government agencies, and development partners). The plans include comprehensive market opportunities analysis and give a clear vision and approach to expand export sales to those markets, allowing stakeholders to be strategic rather than reactive.

The SEMP process has strategically informed HVAA’s export market development activities for the remainder of the project (although SEMP may be periodically adjusted):

- For apples, the key markets to be supported are Romania, the Middle East, and North Africa;
- For table grapes, the key markets to be supported are Central and Eastern Europe (Romania, Poland, etc.), although Western Europe also offers niche opportunities worth pursuing;
- For stone fruit, the key markets to be supported are Western EU countries, such as Germany.



Through the SEMP meetings, stakeholders also determined that participation at international fairs remains a key market development tool, but to maximize its effectiveness, trade shows should be integrated in a broader process that includes: (1) selection of participants based on their commitment of a certain volume for the targeted market; (2) extensive preparation for the event, including development of a commercial offer, product availability chart, and analysis of logistics costs; (3) active work during the fair; (4) quick



*Moldova booth at WorldFood Moscow*

follow-up to the identified opportunities immediately upon returning from the event. While Moldovan businesses have recently begun participating in international exhibitions, and this alone is a positive development, HVAA will apply lessons learned to all of its marketing activities and will support the industry associations to adopt best marketing practices as a service for their members, ensuring that participants maximize their opportunities for greater results.

To explore the identified strategic opportunities for Moldovan fruits, HVAA issued a grant to MFA in June 2018 that includes:

- Participation with country stands under the “Moldova – Taste Makes the Difference” brand at WorldFood Moscow in September 2018, World of Perishables in October 2018, and FRUITLOGISTICA in February 2019;
- Strengthening linkages with Romanian importers and retailers and carrying out a promotional campaign for Moldovan fruits and grapes in Romania;
- Organizing inward and outward trade missions to establish linkages with buyers from alternative markets identified through the SEMP.

HVAA and MFA continued to provide post-fair assistance to participants at international fairs to transform identified leads into concrete contracts and shipments.

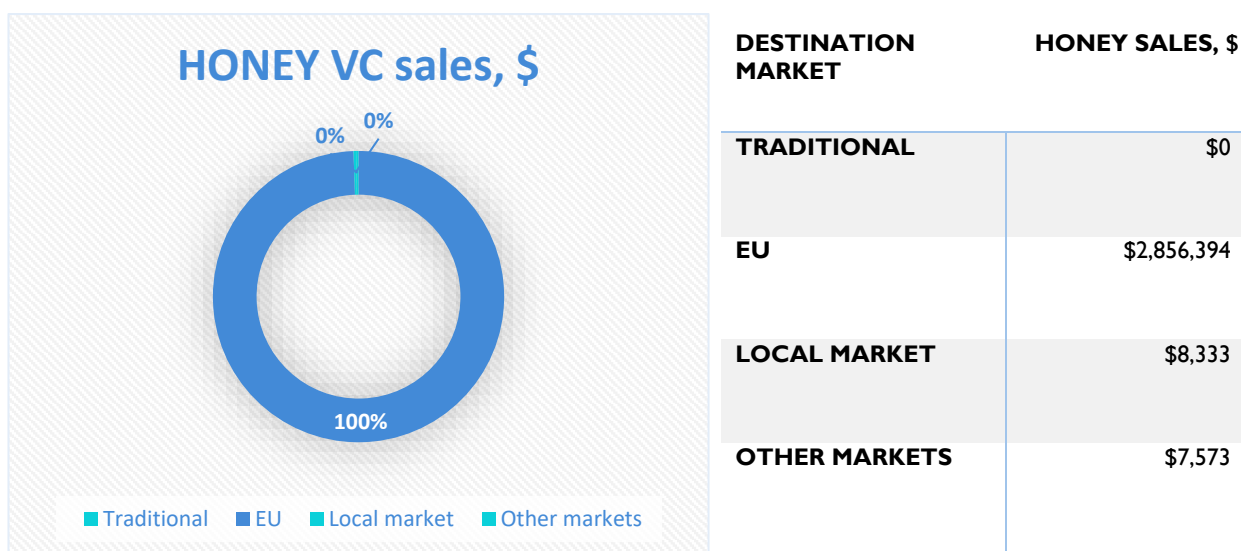
To help the HVAA Team capitalize on emerging market opportunities, the project engaged a half-time international marketing specialist with an extensive network of global buyers. The specialist assisted HVAA’s marketing team in supporting export-ready companies to access target markets (initially focusing on Romania, Poland, Spain, and Gulf markets); provided support for international trade fair participation; and continued relationship building with identified buyers.

HVAA facilitated communication with multiple EU importers that were interested in Moldovan plums and table grapes, and also organized an inward trade mission of Greenyard, a large global fresh produce trader. During the trade mission, HVAA brought the Greenyard buyers to visit several export-ready firms to begin establishing relationships, and the buyers were generally open to initiating a sales program in Moldova. This marks a major success for the project, as Greenyard is one of Europe’s largest distributors and had not previously considered Moldovan businesses as viable partners.

HVAA also sent samples of plums from two companies with GLOBALG.A.P. certification to three EU importers, all of which found that the products meet their quality requirements (grading, quality tolerances, packaging, and pesticide residues). The delays in obtaining GRASP certification (a mandatory requirement of the targeted EU buyers) have postponed potential commercial shipments for plums and other stone fruits. Based on the lessons learned from plum growers, HVAA is actively supporting three Moldovan table grape growers to obtain the GLOBALG.A.P.+GRASP certification in a timely manner by mid-November 2018 so that pilot shipments could be carried out in the December-January market window, when Moldovan grapes are most competitive. These GRASP certifications will be the first in Moldova.

### HONEY VALUE CHAIN

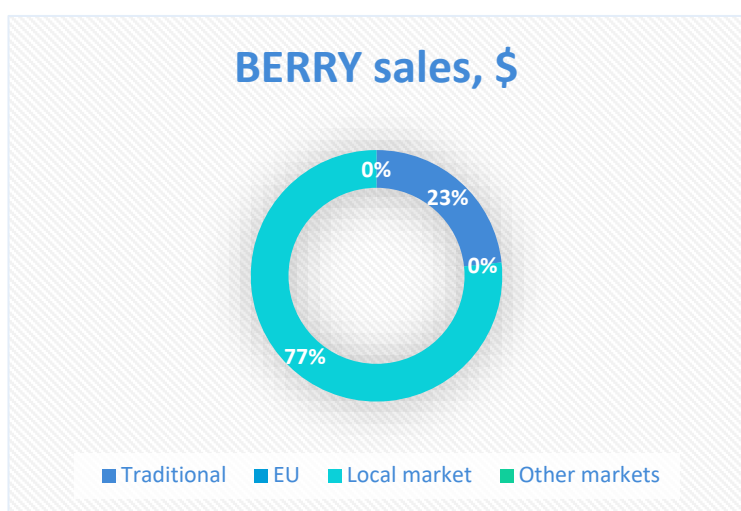
Through the Honey SEMP development process, HVAA and its partners pinpointed that processors and exporters vary significantly in size, capacity to control the consistency of honey quality, preconditions to pack honey in value added packaging, and ultimately have different export sales ability. During the season, higher antibiotics residue levels prevented several exporters to achieve premium positioning on the market even in the bulk segment. Hence, more focused strategic steps for approaching targeted export markets with finished branded products were not clearly defined through SEMP development, as preemptively attempting to enter markets prior to ensuring high quality products can be damaging for long-term sales. Recognizing that there are enormous market opportunities for organic honey around the world, two honey consolidators and their beekeepers obtained grants from USAID/HVAA to establish an organic honey certification program and gained a better understanding of market conditions for organic honey. In Year 3, approximately 90 beekeepers will obtain organic certification, which will be the first instance of organic production in Moldovan and will allow processors to tap into this niche market.



HVAA will work with honey exporters and their association (currently in the process of registration) to continue the SEMP process in Year 3. Based on the experience of the 2018/19 season, HVAA will lead a process for developing specific Value Chain export objectives and an Action Plan. The SEMP will be shared at the Annual Honey Sector Forum in Y3 to discuss technologies (vertical hives), sector development and market access priorities, and opportunities for conventional and organic honey.

## BERRY VALUE CHAIN

During Year 2, HVAA focused its efforts on providing support to berry producers to increase sales (1) by organizing Summer Berry Fairs aimed to increase consumption of berries on the local market; (2) by providing grants to berry consolidators to upgrade their post-harvest facilities with critical equipment (pre-cooling, storage capacity). Additionally, HVAA offered direct technical assistance and group trainings to berry producers (with a focus on production clusters located in Cunicea, Pocrovca and Chitcani) to increase the quality of the berries produced and post-harvest handling (PHH) that will help allow farmers to transport berries to international markets, especially strawberry, raspberry, and blueberry. As low volumes remain a constraint for international sales, HVAA is encouraging the production cluster model, which will lead to uniform product and consolidated offerings that will be more viable for buyers.



DESTINATION MARKET	BERRY SALES, \$
TRADITIONAL	\$300,000
EU	\$0
LOCAL MARKET	\$987,544
OTHER MARKETS	\$0

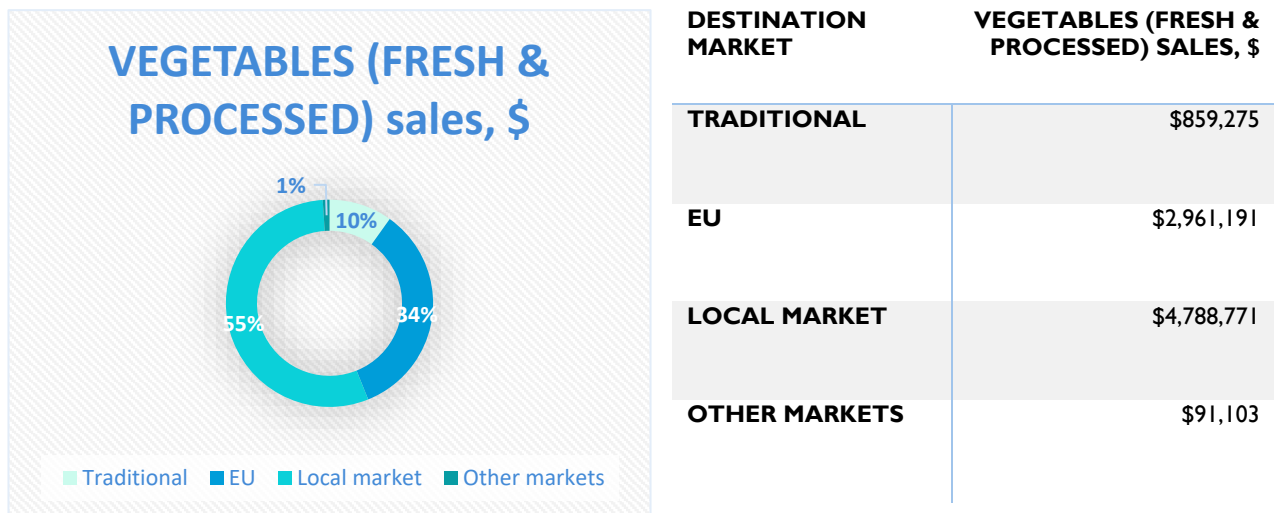
## OPEN-FIELD VEGETABLE VALUE CHAIN

The domestic retail market is attracting increased attention from private sector associations and their members, but there are many roadblocks for farmers to successfully sell to retailers in Moldova. One constraint is a lack of knowledge regarding consumer demands and preferences for the domestic market, which is drastically understudied in a systematic manner. To address the vast knowledge gaps for retailers, producers, and the project itself, HVAA launched a comprehensive domestic market study that will also explore and define market opportunities for producers from the project’s targeted value chains. Following the analysis of 1200 consumer interviews and finalization of focus groups in October 2018, HVAA will organize its dissemination to retailers, distributors, and the grower community to discuss its findings and act on them. In June 2018, HVAA presented the preliminary findings of the study – with a focus on the Chisinau market – at the “Differentiation and Innovation in Retail and Fast-Moving Consumer Goods” Conference, which was attended by all leading Moldovan retailers and fresh produce distributors.

**Linking local fruit and vegetable producers to processors.** Contract farming, whereby producers are linked with processors prior to the growing season, offers multiple benefits to producers, such as lowering risk by offering a guaranteed market. However, many producers in Moldova are hesitant to establish contracts with processors because payments are not “under the table” and the payment terms are slightly delayed in comparison to the open market. Additionally, there is a widespread belief that prices offered by processors do not cover production costs. To encourage the practice, HVAA carried out a comprehensive study on domestic demand for crops from major processors and retailers in Moldova during the previous reporting period. The study identified multiple gaps in processor and grower business relations that prevent both



parties from mutually benefitting from each other, such as insecurities about volumes and prices, leading to limited investment in improved technologies and low availability of raw materials at relatively high costs.



The data on supply demand was widely disseminated to encourage more farmers to establish contracts with processors and retailers, rather than selling on the open market, where prices are unpredictable and market saturation is common. Based on those findings, HVAA developed a grant program to showcase efficient models that will lead to longer-term relations between processors and producers.

Recognizing that the practice of contract farming is unfamiliar for many producers, HVAA organized a Domestic Trade Forum for fruits, berries, and fresh and processed vegetables in February 2018. The event was enormously successful and brought together more than 100 vegetable, fruit, and berry growers and 22 retailers and processors. The Forum consisted of pre-scheduled 15-minute “speed” meetings, which allowed growers to meet with buyers to present their products and discuss terms for potential collaboration. The Forum resulted in multiple contracts between farmers and local buyers and introduced many growers to processors and retailers with whom they previously did not have access to.



## REACHING THE EUROPEAN MARKET

Apple production in the Republic of Moldova has been increasing over the past years due to increased investment from growers in competitive varieties and modern plantations. Currently, there are approximately 56 thousand hectares of apple orchards. Nonetheless, the sector faces multiple challenges both at the quality assurance level and in terms of sales.

The Russian Federation has been the traditional destination for Moldovan apples, yet in recent years it has become an insecure market for Moldovan businesses. Due to political reasons, Russia has stopped imports of apples from Moldova on multiple accounts. This has threatened commercial relations of Moldovan farmers and has had negative economic impact on producers as a result. Although the Russian market has low entry barriers and Russian businesses operate on terms that are familiar to Moldovan exporters, market diversification is becoming increasingly critical for Moldovan entrepreneurs.

Accessing new markets is a challenging task, and the requirements of European and Asian markets are particularly demanding in terms of quality assurance and competition which requires additional investment and a shift to better business practices by Moldovan farmers. In addition to increased quality requirements, Moldovan farmers have to establish trade relations with importers and retail networks, proving that they are reliable business partners. All these aspects are on the agenda of USAID/HVAA, which is working step by step with producers who are ready for the challenge. Initially results are already tangible; with the support of USAID/HVAA, producers have accessed markets in Belgium, Poland, Romania, the UAE, Germany, Austria, and the UK, and have established contracts with buyers in Qatar and the USA.

In September 2017, Farm Prod LLC from Stefan Voda rayon, participated in an international exhibition with other 9 fruit producers, members of MFA. The participation of Moldovan farmers was supported by the USAID/HVAA in partnership with the MIEPO. Farm-Prod has presented apples, plums, peaches and nectarines produced on the 130 hectares of orchard it manages, at the event. High-quality fruit have raised visitors' interest at the stand. The GLOBALG.A.P. certificate, performed due to HVAA technical assistance, offered to the Company additional competitiveness. During the exhibition Farm Prod met a representative of a Belgian company that requested Jonagold apples of the 65+ caliber, colored at least 50% of the surface, highest quality, with no defects.

The contract between the two parties resulted in delivery of more than 110 tons of Moldovan apples to Belgian market.



HVAA designed and implemented a production training and technical assistance program to bridge the gap between market requirements and the current value chain capacity at production and post-harvest handling levels. The trainings were designed to address producers' constraints, including a fragmented and disorganized production/supply system, as well as low productivity. During Year 2, the project organized more than 242 events (trainings, technical assistance, conferences, and study tours), which reached more than 2,930 participants. In addition, HVAA provided continual assistance to producers to implement international standards and best practices to comply with international requirements such as GLOBALG.A.P., GRASP, and ISO 22000. A group of four producers received GLOBALG.A.P. certificates in December 2017. A new group of nine farmers successfully passed the GLOBALG.A.P. audit and will be certified by the end of 2018.

## **OBJECTIVE 2: IMPROVE PRODUCTIVITY, POST-HARVEST HANDLING, AND PRIVATE SECTOR CAPACITY TO COMPLY WITH EU AND INTERNATIONAL STANDARDS IN TARGETED VALUE CHAINS**

### **Sub-Objective 2.1: Improve Adoption of Innovative Technologies and Agricultural Practices in Targeted Value Chains**

HVAA supported sector associations to organize the National Berries Conference, Fruit Business Conference, Forum of Table Grape Producers, and National Beekeepers Forum to provide effective platforms to disseminate the accumulated experiences of adopting technologies and best practices in production and post-harvest handling to the widest possible community of producers. Such events represent a great opportunity for sector stakeholders to share their knowledge and experiences on a wide range of topics, ranging from export market trends to innovative production and post-harvest technologies. A key feature of the events was the active involvement of input and technology suppliers, a movement that HVAA encouraged to promote greater extension services from the private sector.

All training activities were compliant with requirements laid out in the project's Initial Environmental Examination (IEE) and HVAA's Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP). HVAA continually promotes best practices in sustainable agriculture.



In line with HVAA's Initial Environmental Examination (IEE) and Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP), HVAA produced a poster (see sample on the right) related to best practices to safe use of pesticides. To promote Good Agriculture Practices in this field, HVAA disseminates the posters to all of its grantees and assisted producers. The posters offer practical and informative guidance on the safe use of pesticides for the protection of human health by assisting pesticide users to achieve a safe system of work. The recommendations are applied to employers, self-employed persons, and employees engaged in the end use, transport, and storage of pesticides for agricultural purposes.



During 2018, HVAA collected soil and water probes at grantees' sites for analysis. From the results of these probes, the project's agronomists were able to advise local farmers on better soil and water management, the suitability of soils for certain types of plants, the necessity and suitability of fertilizers, and in one case, prevented soil salinization.

### TABLE GRAPE VALUE CHAIN

As part of an HVAA "Partnerships for Technology Transfer" grant activity, APSM Cahul organized a study tour to Romania for a group of 20 grape growers (including other HVAA grantees) and crop advisors to learn about the pergola vine training system from four leading Romanian grape growers who attested that product quality and yield dramatically improve after transitioning to the improved technologies. Lessons learned from the Romanians' experiences will be applied at the HVAA pergola demonstration plots.

Currently, Moldovan table grape growers almost exclusively use the "Vertical Espalier" vine training system. This system was initially adopted by the Moldovan technical wine grape growers in the Soviet era, and table



*Tables Grapes produced on pergola trellis system*

grape growers adopted the system by default, as vinicultural research during that time was focused on wine grape production and no other alternatives were studied in Moldova. The "Vertical Espalier" serves the wine grape growers quite well but has a series of severe shortcomings that have a negative impact on the yield and quality of table grapes grown under this system. Therefore, HVAA held a grant competition for intensive table grape technologies and selected three applications to adopt pergola systems and one application to adopt a gable system, which will exponentially increase yield and quality. The grant activities cover key grape producing regions (Cahul, Ialoveni, and Orhei Rayons) and serve as demonstrations of the potential of these technologies, as well as a learning ground for local crop advisors. Multiple training events organized by

APSM Cahul were hosted at these demonstration plots, which will continue to be used for training for the remainder of the project.

To build local capacity in intensive grape production, HVAA hosted a grape production consultant from Italy for four assignments. The consultant visited all four grantees under the “table grape intensive production technologies and practices” grant program and provided on-the-job training for the grantees’ staff on crop nutrition and the use of growth regulators to increase bunch and berry size. During all visits, the Short-Term Technical Assistant (STTA) was accompanied by local crop advisors who will support other Moldovan grape growers that are planning to adopt the intensive grape production technologies.

After significant analysis, HVAA identified the use of inadequate quality seedlings as a major constraint for fruit, grape, and berry value chains, as it leads to lower quality of harvested fruit, lower fruit yields, and subsequently higher unit costs. While fruit and berry growers could import higher quality planting materials, it would significantly increase investment costs. The situation is even worse for table grape growers, as cold-hardy varieties suitable for Moldovan climate conditions are not generally available through foreign nurseries.

#### **Increased quality and productivity in production of table grapes due to HVAA provided assistance**

Under the APSM Cahul grant surveying the use of Intensive Grape Production and PHH modern technologies, 61% of the interviewed sample has applied techniques to improve the grape color. About 70% of this sample also mentioned applying new fertilization and crop protection programs, along with pruning in green operations after the Study Visit to Romania with the local expert Sergiu Tutovan and international expert Stomeo Georgio. The above-mentioned practices produced a 15% increase in labor force efficiency reducing the labor time from 45 man/days to 40 man/days and a 20% increase in crop productivity.

As a critical step in cultivating quality inputs, HVAA organized a study visit to Italy for representatives of public authorities, laboratories, and research institutions. Italy produces high quality planting materials for export and domestic use, and the tour linked key Moldovan stakeholders with Italian experts who shared advice and best practices that can be applied in Moldova – from the laboratory to the field. With HVAA assistance in Year 2, Moldovan legal framework approved procedures to certify virus-free planting material in compliance with international standards, a major breakthrough for the sector.

In line with adopted strategy to address the lack of quality planting material for table grape production, HVAA brokered a partnership between USAID, Ministry of Agriculture, Regional Development and Environment (MARDE), the National Office of Vine and Wine (ONVV), HEKS-EPER, and the Horticulture Research Institute (HRI), resulting in a MoU that was signed in May 2018 that will commit approximately \$400,000 for the rehabilitation of HRI’s tissue culture laboratory, greenhouses, and scion mother stock plantations. Additionally, HVAA supported the HRI by equipping it with agricultural machinery to plant and manage the mother stock blocks and funded non-structural improvements to a greenhouse at the HRI’s tissue culture laboratory to make it functional. These investments will enable private nurseries to produce certified, virus-free vines beginning in 2020, which will be transformative for the sector. Through its grant program, HVAA helped install the first thermo-treatment equipment for table grape planting materials in the Republic of Moldova at a major commercial nursery, the first of its kind in the former Soviet Union. Applying thermo-treatment ensures that planting materials are virus-free, leading to improved quality and quantity of harvested grapes.

Thermo-treated planting material is a mandatory procedure in the EU, and future Moldovan legislation may also make it a requirement soon. After the new equipment was installed, HVAA's grantee held a demonstration event in May 2018 to share the innovative technology with sector stakeholders. More than 20 nurseries from Moldova produce up to 6 million planting materials each year, and applying thermo-treatment will help safeguard farmers' investments, ensure that Moldovan grapes remain high quality, and increase competitiveness in international markets.

To help Moldovan producers diversify grape varieties that are responsive to market demands, HVAA partnered with the United States Department of Agriculture's Plant Genetic Resources Unit to import seven "cold hardy" American seedless varieties to Moldova, which were donated by the USDA. Another two patented varieties were provided by Cornell University under a Material Transfer Agreement with HRI. USAID/HVAA is facilitating the quarantine process with local researchers at HRI. After quarantine, the table grape budwood will be used to set up demonstration plots to test the varieties in Moldovan conditions and verify with exporters their suitability for export markets.

### Thermo-Treated Planting Materials Showing Promising Early Results



In August, Elvitis nursery hosted a monitoring visit from the National Horticulture Institute to demonstrate how well the thermo-treated planting materials are developing compared to non-treated planting material. Thermo-treatment ensures that planting materials are virus free, which results in higher-quality and higher-yielding grapes, and increased competitiveness on international markets.



## New practices adoption in the TABLE GRAPE VC



## APPLE & STONE FRUIT VALUE CHAIN

Moldovan fruit growers are increasingly investing in stone fruits, which provide higher profits and are in greater demand in export markets in comparison to apples. To address the multiple production, food safety, and market challenges faced by growers diversifying into stone fruits, HVAA provided a grant to MFA under its AITTF. In June 2018, MFA partnered with international input supplier and organized three international study tours to expose Moldovan growers to international best practices:

- "Intensive cherry and apricot production" study tour to Italy in partnership with Advice & Consulting LLC., with the participation of 18 growers;
- "Intensive apple and apricot production" study tour to Austria, with the participation of 18 growers;
- "Intensive sour and sweet cherry production" study tour to Hungary in partnership with Pullulo Faiskola Kft, with the participation of 17 growers.

In June 2018, Ceteronis LLC launched its sweet cherry packinghouse in Gura Bicului, which is the only Moldovan PHH facility equipped with hydrocooling and a cherry packing line. The facility incorporates recommendations provided by HVAA's Cherry PHH international consultant during her mission in March 2018. As the company was able to supply a high-quality fruit with a longer shelf life, Ceteronis secured a large contract with a French buyer at prices which were at least 30 percent higher than those offered by the Russian market. Unfortunately, the export was not allowed by the French authorities because Moldova's National Food Safety Agency (ANSA) could not provide enough guarantees for the control of dimethoate, a pesticide banned for use on cherries by France. During Year 3, HVAA will provide assistance to ANSA to improve its control procedures in order to gain market access for Moldovan cherries during the next marketing season. Following a RFA issued in Year 2, two other cherry consolidators were identified that will be supported to implement advanced cherry pre-cooling and grading operations in Year 3.

As red apples have a higher demand in international markets, the project partnered with MFA and its members to demonstrate potential approaches to meet specific market requirements for apple coloring.

### Increasing fruit harvest with improved pruning methods



23% of fruit growers from an interviewed sample emphasized a 20 to 50% increase in productivity due to a modern pruning method applied, as well as an increase in labor efficiency during the harvesting period.

Operations in green, such as fruit thinning, as well as winter and summer pruning techniques that were promoted by HVAA's international consultants have led to tangible results at harvest for many growers who have adopted the practices. Agroparc Management LLC has increased its plum and apricot production from 1 ton per hectare up to 3-6 tons per hectare.

Borivas Agro applied the K.G.B. pruning technique at the recommendation of HVAA's agronomist and used modern rootstock varieties after seven of their representatives participated in six HVAA trainings. After applying the method to all of his orchards (plums, apples, apricots, sweet and sour cherries), his harvest increased substantially, even doubling the yield of sour cherries. A typical harvest using the K.G.B. method is between 5-10 tons of cherries per hectare. His orchard offered a harvest of 12 tons per hectare. The owner was extremely satisfied with the results obtained.

Techniques include the use of reflective film on orchard floors three to four weeks prior to harvesting to bring more sunlight to the tree canopy. HVAA also promoted the use of higher-colored strains of market-demanded varieties, such as Gala, Jonagold, Fuji, and Cripps Pink. In October 2017, HVAA held a practical seminar at Elit-Fruit's orchard in Cosernita, Criuleni to demonstrate these approaches in practice, and later supported their adoption through technical assistance.

HVAA's international apricot production consultant visited Moldova on three assignments to provide expertise on appropriate practices and technologies to establish intensive apricot orchards, as well as to demonstrate techniques for winter pruning, fruit thinning, crop nutrition, and crop protection. The consultant visited multiple leading apricot growers and consulted on various aspects of orchard management, concluding that Moldova has the same potential to produce high quality apricots as Italy. During the assignments, HVAA partnered with MFA to organize training sessions on apricot production for its members and crop advisors.

To provide fruit producers with updated information about modern apricot production and post-harvest technologies, HVAA developed a comprehensive guide that will be disseminated during training events and through sector associations.

On March 17-28, 2018, HVAA hosted an international sweet cherry PHH expert who visited five sweet cherry growers with cold storage facilities. The consultant provided actionable suggestions for growers to add more value to their cherries through improving their harvesting, cooling, and packing operations. In addition, to ensure that stakeholders have the most recent guidance and that USAID resources are continually utilized, the consultant updated the PHH section of the USAID/ACED Sweet Cherry Guide. During the same period, an international sweet cherry production consultant traveled extensively around the country to visit ten orchards and provide technical assistance to advisors, university personnel, and orchard managers and workers. At each location, the consultant pruned a few trees as training examples, teaching key concepts of pruning. Other topics frequently discussed included nutrient management, soil modification due to severely high pH conditions, and tree vigor control.

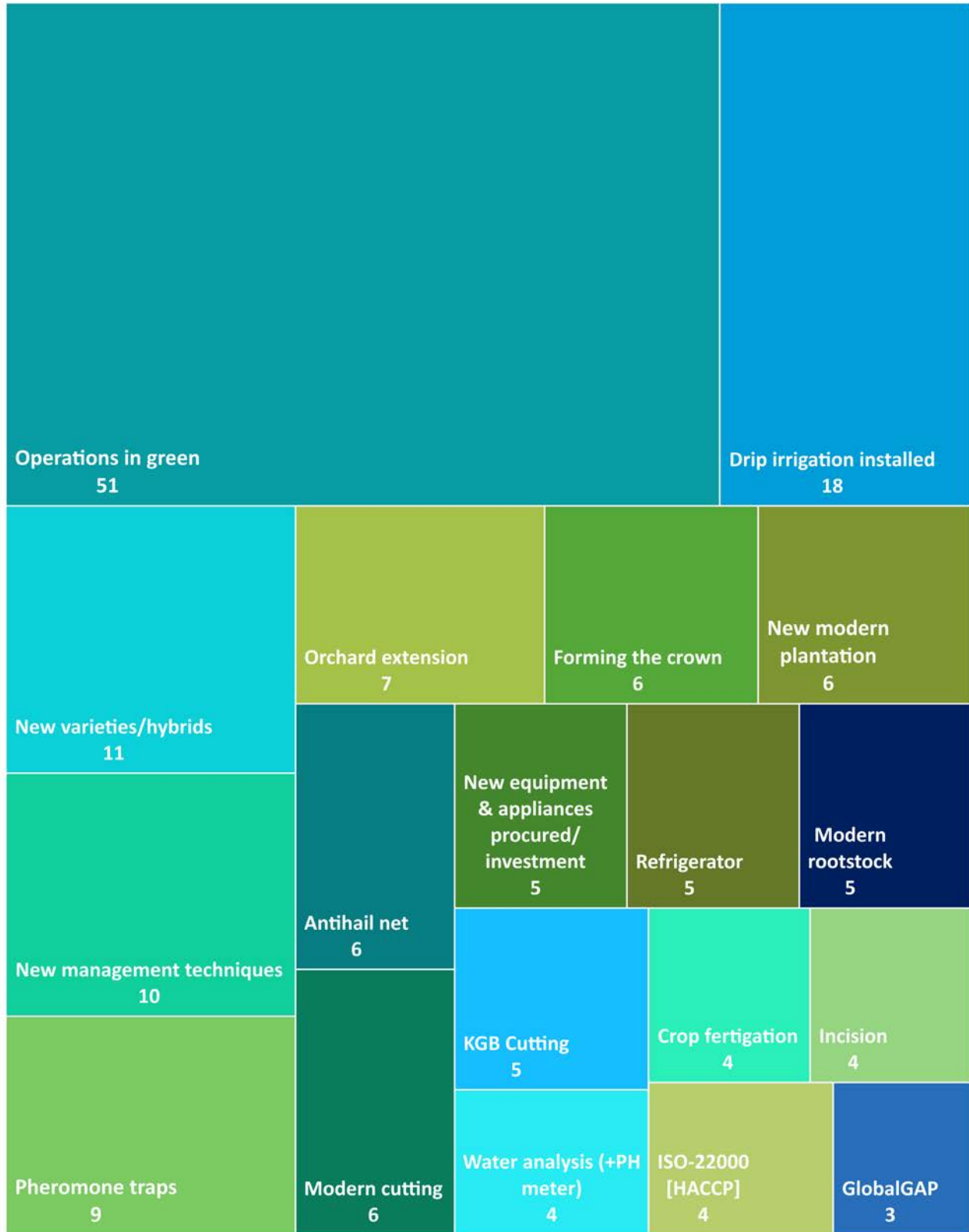
As a result of the project technical assistance offered through the local but also international expertise, as well as the study visits, demonstration activities, and grants, 40 practices were adopted by 235 firms and farms.

### Modernising Stone Fruit Production



Amonti Agro LLC. benefited from HVAA technical assistance and is now using the new flat peach variety known as UFO or Saturn. They have also modernized their crown forming for apple and sweet cherry trees. The firm recently planted a new apricot orchard using modern rootstock of apricot varieties suggested by HVAA specialists and are also using pheromone traps. After applying for AITTF funding, the firm received hydraulic platforms for fruit harvesting (pictured above). The director mentioned the platforms have been extremely helpful, as reduce the harvesting time by up to five times. With credit from commercial banks, they have built a refrigerator, which will ensure that the firm is protected against daily market fluctuations and that product quality remains high.

## New (main) practices adoption in the FRUIT VC





## HONEY VALUE CHAIN

During the assessment of the honey sector conducted by HVAA during Year 1, stakeholders indicated that the lack of modern vertical hives is a major constraint preventing expansion of honey production and

### Decreasing the risk of honey contamination



During Year 1, HVAA procured and delivered 21,000 uniform, food grade honey collection containers for three honey exporters under grant agreements. The grantees have now distributed the containers to more than 350 beekeepers across Moldova. The grant activity provided a simple solution to a critical problem in the Moldovan honey sector by ensuring that collection procedures comply with European food safety standards and by training beekeepers to adjust their production practices that will result in cleaner, more profitable, higher-quality honey for export to a demanding market. This summer, beekeepers started to use the new vessels for the harvested honey, with 80% of the beekeepers using containers for the first time. Both the beekeepers and the exporters were very satisfied with the outcome. Uniform containers are much easier to operate compared to barrels, especially when carried into rural areas. Honey homogenization in vessels now requires just two days as compared to five to six days of homogenization for honey in barrels. This has already created considerable savings in electricity and in labor. The end result is honey with improved quality, as the containers allow for an intact raw material and prevent contamination that was common from beekeepers using inappropriate collection vessels. Step by step, the sector is transforming from hobby to business.

processing in Moldova. Two serious problems limit the adoption of modern vertical hives in Moldova: (1) the lack of a locally adopted standard hive design, and (2) the lack of capacity to manufacture hives on an industrial scale at a lower cost. To address this problem, HVAA held a roundtable with industry stakeholders to establish a standard hive design and promoted 'hive kits' which can be assembled directly by beekeepers (rather than by the manufacturer) and cut down manufacturing time and cost to the end user.

To promote adoption of vertical hives, HVAA awarded a grant to the National Beekeepers Association of the Republic of Moldova (NBARM) to distribute 2,400 vertical beehives to 30 competitively-selected Moldovan beekeepers from around the country, including Transnistria. By receiving the vertical hives, beekeepers will be able to dramatically expand production and transform their hobby into a business. A critical component of the grant activity is demonstrating the efficacy of the vertical hive system, which allows beekeepers to exponentially expand the number of hives per worker in an apiary. The vertical hives users have already observed a 15-20% increase in productivity during the first season. The improved technology allows one beekeeper manages to perform apiary works in 50-60 vertical beehives per day, compared to 30-35 horizontal hives per day. As part of the Vertical Hive Distribution and Training grant activity, NBARM delivered 15 trainings to beekeepers across the country. The trainings have sparked significant interest from beekeepers, and NBARM is becoming a key resource for

beekeepers around the country, which is a dramatic organizational transformation in a very short time.

International honey experts boast that Moldovan honey is some of the highest quality in the world, but larger neighboring countries are fierce competitors for Moldovan beekeepers and exporters. Therefore, it is increasingly critical for Moldovan beekeepers to develop niche products for non-traditional, high paying markets. Organic honey has the potential to provide dramatic income increases for local beekeepers, yet

there are no bio-certified apiaries in Moldova. To address this issue, two honey processor/exporters, with grant support from HVAA, started to work with approximately 90 beekeepers to convert to organic practices and obtain certifications. As part of the grant, the processor/exporters will invest in necessary equipment for them to process organic honey for market.

To date, 867 beekeepers received support from HVAA through increased access to new technologies and best practices. With support from a US beekeeping expert and television professional, HVAA and AgroTV developed a series of educational programs on improved beekeeping practices. Six clips were finalized and began airing on AgroTV, and another four films will be produced within the next year.

## BERRY VALUE CHAIN

As the Moldovan berry sector grows, producers are orienting themselves to invest in production technologies that improve quality and increase yield. To drive new practices in the sector, HVAA awarded 11 grants under the Berry Innovation Program. The awarded grants aimed to promote new production technologies, showcase new berry varieties, adopt the use of modern equipment, and demonstrate technologies for post-harvest infrastructure. The provided grants on Berry Innovation Program generated an additional 558,000 USD in private investments.

### Bringing New American Berry Varieties to Moldova



High-quality planting materials are critical for berry plantations to maximize profit per hectare and represent more than 70 percent of the investment necessary to grow and harvest berries. Currently, only three varieties of strawberry cultivars are registered in Moldova—however, the berries produced do not align with market demands, thus reducing profitability. To address this challenge, HVAA's grantees partnered with U.S. commercial nurseries to introduce new North American strawberry and raspberry varieties. Through its grants program, HVAA is working with farmers such as Angela Bejenaru, who has extensive experience in strawberry production, to test production of the new berry cultivars. Ms. Bejenaru planted more than 1,500 US strawberry plants, and early results are promising. Some of the new plants have already begun to produce berries, although the first real harvest is expected in 2019.

HVAA utilized the expertise of a berry consultant from the US to provide specific recommendations to each grant recipient. In addition, the consultant delivered a ToT program for national consultants that were involved in the implementation of HVAA's Berry Training Program, as Moldova lacks a roster of qualified local consultants and trainers in the berry sector.

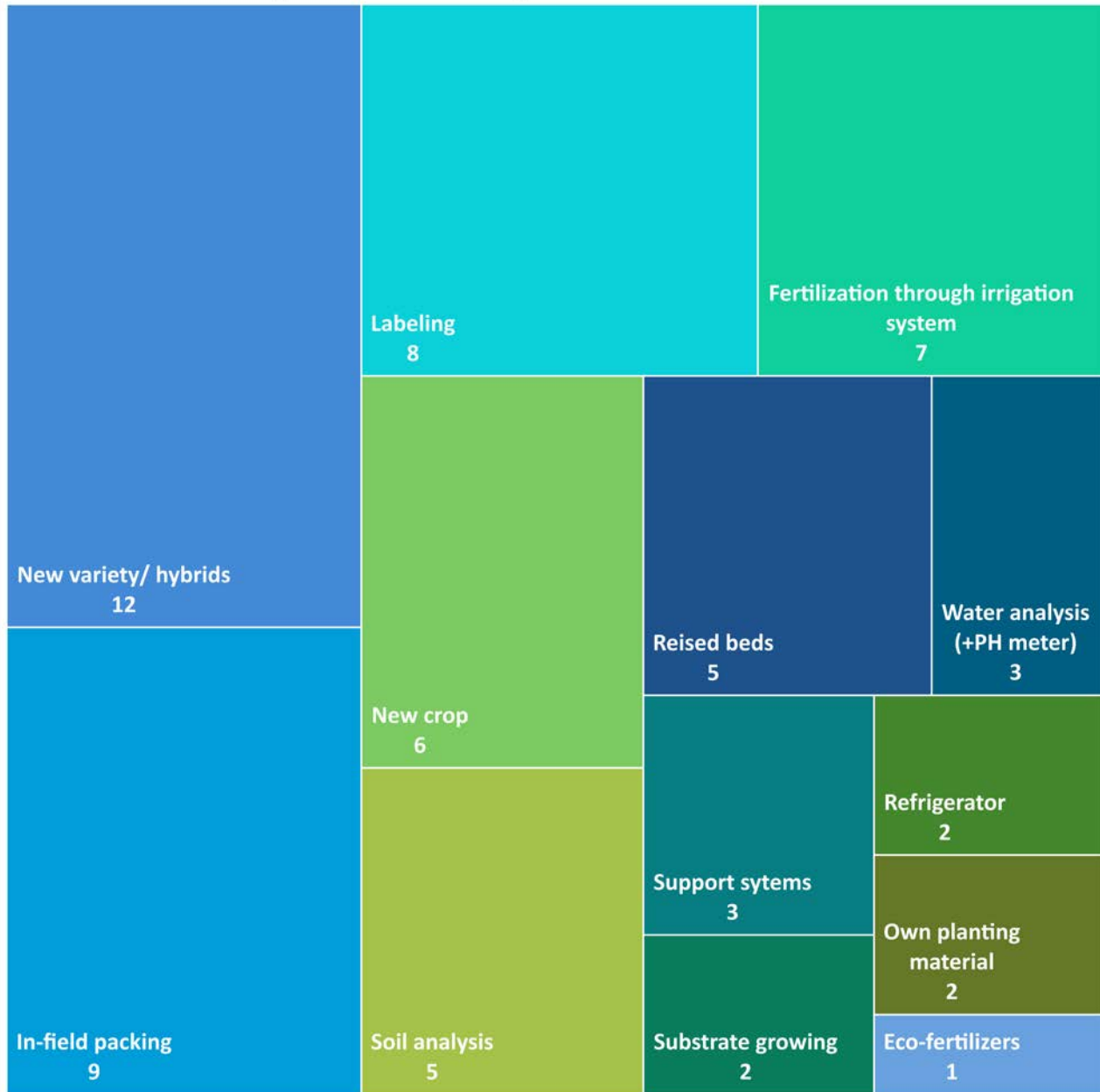
HVAA sponsored a Berry Nursery Study Tour to Italy, which connected producers with quality input providers. To share their lessons learned, HVAA organized a follow-up meeting for berry producers, local consultants, and representatives of the sector associations to learn about available varieties and procedures for import.

HVAA brought ten berry growers on a study tour to Bosnia & Herzegovina to learn more about planting material production for strawberries and raspberries; new varieties of strawberries and raspberries; support systems (trellis system); covers culture (high tunnels) for raspberries; soil-less culture for strawberry production; fertigation equipment and techniques for use; harvesting machinery for raspberries; post-harvesting equipment for pre-cooling and quick freezing; and packaging and marketing of berries.

Many growers are interested in cultivating berries, but lack knowledge of and access to varieties that are in demand in the market and appropriate for the Moldovan climate. The majority of berry growers in Moldova use the same varieties of berries, which leads to a surplus of berries at the exact same time, ultimately lowering prices and profit margins. HVAA worked with US commercial nurseries to help identify and import four new strawberry varieties and four new raspberry varieties (purchased by grantees) that are able to be harvested either earlier or later than typical varieties currently in Moldova, which will allow growers to sell when market prices are higher. The new cultivars represent some of the leading North American varieties and will be evaluated for their performance under Moldovan conditions with HVAA technical assistance. The new varieties were housed on two demonstration plots owned by local farmers who will host trainings and information sessions for other interested growers.

To ensure that all berry producers from different regions of the country benefit from HVAA support, the project launched a grant activity, implemented by Belii Most Association from Transnistria, which aimed to provide training on berry production and PHH, increase available high-quality planting materials, and encourage uniform production and PHH techniques. Under this grant, Belii Most provided a series of trainings for local farmers on producing planting material, using a mulching/film-laying machine, and post-harvest handling for berries. Producers also visited various farms that use high levels of technology to learn from business owners' experience. In several cases, study visits took place on the Right Bank of the Nistru, which fostered greater dialogue between growers on both sides of the Nistru. As part of the grant, Belii Most established a nursery for strawberry planting materials that will provide high quality planting materials for the Association's members and other growers in the area. In addition, Belyi Most Association identified ten producers who were willing to make investments and grow uniform berries using the same technologies and practices, which will allow them to pool their resources and sell at larger volume. The producers collectively imported planting materials from Italy and received mulching film and drip irrigation under the grant from HVAA. By using uniform planting materials, technologies, and practices, the producer group will be able to consolidate their harvest and will be more attract to potential international buyers.

## New practices adoption in the BERRY VC



### OPEN-FIELD VEGETABLE VALUE CHAIN

“Production of open-field vegetables under contract for retail and processing” was adopted as a project strategy to work in the open-field vegetables value chain, and HVAA provided nine grants to demonstrate new production/PHH technology and contract farming with 17 vegetable producers/processors including: tomatoes for processing; gherkin production using trellis systems and nets; mechanical harvesting of onions, carrots, and red beets; and sweet pepper production using trellis systems.



### Removing disparities between farmers from both banks of the Nistru river



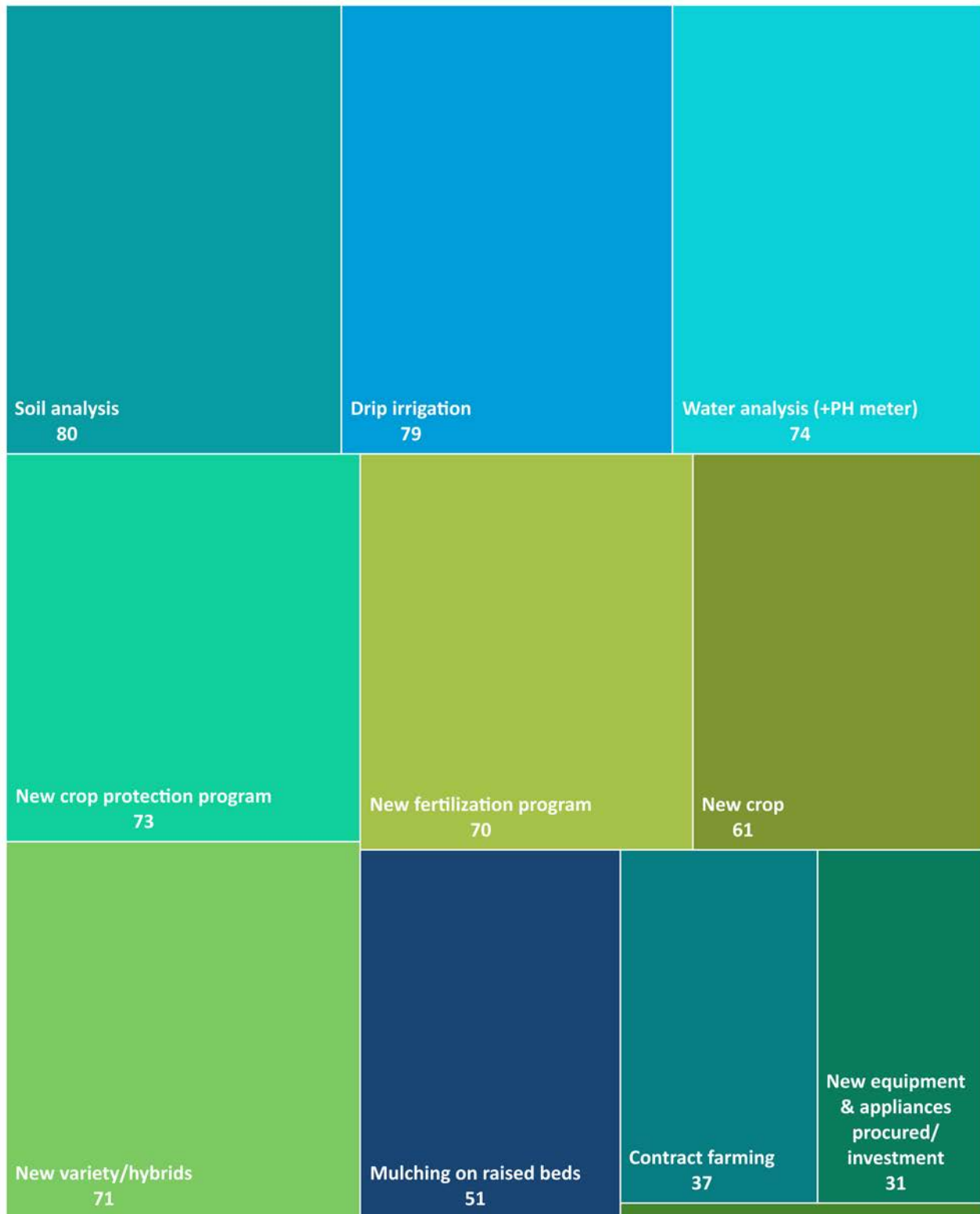
HVAA awarded approximately \$164,385 in grants to organizations based in Transnistria that are legally registered in the Republic of Moldova. Grant activities included refrigeration for berry post-harvest handling, training initiatives in berry cultivation for youth in Transnistria, contract-based vegetable production, and berry cluster production and nursery development. Beekeepers in Transnistria were included in the project's vertical hive demonstration activity, and Dniestr Fruit organization partnered with Moldova Fruct Association for fruit-production training initiatives. Through grant initiatives, HVAA supported Belii Most Association to carry out 'study tours' for farmers in Transnistria to observe leading berry operations on the Right Bank. HVAA's international consultants have provided direct technical assistance to firms in Transnistria. At large, HVAA's activities are highly integrated and encourage cross-communication between stakeholders on both sides of the Nistru.

During the reporting period, 21 contracts were established with processors, distributors, and retail chains. All HVAA grantees under the "Production of open-field vegetables under contract for retail and processing" program reported good crop development, partially due to continuous extension and consultancy support provided by HVAA. For instance, one grantee that received drip irrigation and fertigation equipment reported of harvest up to 2.5 times higher volume in comparison to using a traditional sprinkling irrigation system. Similar positive results were reported due to drip irrigation, mulching, and other innovative technologies. Efficient technologies to help farmers select the most productive vegetable varieties, along with planting, harvest, and post-harvest handling practices adopted by HVAA grantees were demonstrated during 48 trainings (including 14 demonstration days) in which more than 500 non-unique vegetable producers participated from all regions of the country. HVAA organized special demonstration events for producers from rehabilitated irrigation systems areas, as well as for women in the agriculture sector. At one women-owned grantee, HVAA hosted a women farmer demonstration day, which not only showcased new technologies, but connected women in the industry and provided an example of women-led business. Out of all demonstration events participants,

26% were women and 31% participants were youth.

The practical trainings and demonstration activities served as a platform for different participants of the value chain to meet and learn from one another. As a result, 17 new practices were acquired by 175 farmers. Some of these already started to be applied and will be continued in spring. Soil and water analysis, new crop protection and new fertilization programs were among the most mentioned new practices applied. 35% of the interviewed vegetable growers mentioned during surveying that they will start a new crop in spring 2019, 40% mentioned they are preparing to plant new varieties, and 45% stated that they are starting the transfer to drip irrigation. Mulching on raised beds, contract farming, and procuring new pieces of equipment and appliances were also among the practices mentioned. The new practices adoption from the HVAA grants and demonstration activities are presented in the chart below.

## New practices adoption in the VEGETABLES VC



## Sub-Objective 2.2: Improve Private Sector Compliance with International/EU Food/Quality Standards

Due to requirements from international buyers, more Moldovan farmers are aiming to acquire GLOBALG.A.P. certification. The certification process requires significant effort and investment, but GLOBALG.A.P. certification will open doors for growers to buyers in Europe, the Middle East, and beyond.



Producers GLOBALG.A.P. certified

As a result of HVAA assistance provided during Y1, four Moldovan table grape and fruit producers were awarded GLOBALG.A.P. certification. The year-long HVAA assistance consisted of translation of the latest GLOBALG.A.P. standards into Romanian, development of an exhaustive Implementation Guide, design and delivery of a tailored series of comprehensive trainings, and provision of direct technical assistance to committed businesses who sought certification.

Some of the growers involved in HVAA's GLOBALG.A.P. implementation program lack PHH facilities of their own. Instead, they plan to use the services of

nearby facilities that have appropriate food safety management systems to ensure proper safety and handling from “farm-to-fork.” With GLOBALG.A.P. certifications, the producers will have access to higher paying markets, offering premiums as high as 15 percent more than traditional markets, which could easily increase profit margins by 50 percent.

During Y2, HVAA continued to provide implementation support to 15 fruit and vegetable producers to better prepare them for eventual GLOBALG.A.P. audits. By the end of Y2, nine additional producers successfully passed the GLOBALG.A.P. audit, while the remaining producers are expected to pass the audit in Y3.

For the first time in Moldova, HVAA started to work with four local producers and processors to implement GLOBALG.A.P. Risk Assessment on Social Practice (GRASP) assessment. The certification ‘GRASP’ stands for GLOBALG.A.P. Risk Assessment on Social Practice and is used to assess social practices in primary production, ensuring that businesses are maintaining socially responsible operating environments. A GRASP audit focuses on a review of basic indicators of potential social risks on farms, confirming that people working for a company are important and valuable, and that social protections are in place. GRASP standards are a voluntary assessment module, but it increases farmers’ chances to export fruit and table grapes to the EU market, as this certificate is required by an increasing number of buyers.

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**GLOBALG.A.P.**  
 - 4 producers certified  
 - 9 producers passed audit

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During the reporting period, HVAA’s consultant provided ISO 22000 implementation support to seven companies with operational PHH facilities including pre-coolers, cold store rooms, packing areas equipped with grading and packing lines, and refrigerated trucks.



## A VILLAGE REBORN BY STRAWBERRY PRODUCTION

While many villages in the Republic of Moldova are seeing young people emigrate to find opportunities abroad, the youth from Cunicea village, Floresti district are choosing to stay at home and work in agriculture. In Cunicea, strawberries are providing new prospects for youth to earn an income that will support their families. Strawberries in Moldova are cultivated on approximately 1.0 – 1.5 thousand hectares, and the annual production is 4 – 6 thousand tons. One tenth of the entire “strawberry business” is concentrated in Cunicea village.

This phenomenon started modestly—five years ago, strawberries were brought to Cunicea by three former migrant workers. The strawberries were cultivated on less than one hectare using the most basic technologies, and the berries were sold only on the local market. Shortly after, the first strawberry farmers were interested in export, but learned that to attract buyers abroad, there would need to be enough berries to fill at least two refrigerated trucks per week, which was impossible with the modest supply in the village. To do so, the farmers would need at least 10 hectares of strawberries to meet minimum export requirements, and 10 hectares would have been an enormous investment for the pilot farmers. At that point, the business could have ended, yet the Cunicea village has a strong sense of community, and neighboring farmers decided to take the risk and transition to strawberry production as well. In 2016, the total area of cultivated berries for trade in Cunicea increased to 17 hectares. As farmers see successes from their neighbors, more are transitioning to high value agriculture. In 2018, there were about 100 farmers in Cunicea who produced over 70 hectares of strawberries. Sales are also growing dynamically. Farmers from the village exported about 200 tons of berries in 2017, and those export figures increase to 650 tons in 2018.

“The implementation of modern technologies for strawberry production has been supported by USAID/HVAA. The project provided a solution to our problem and under a grant we have purchased innovative agricultural machinery that can perform several operations simultaneously: laying mulching film, mounting drip irrigation pipes, and ridging,” says Ilie Fedorciuc, one of the largest strawberry producers in Cunicea. Ilie Fedorciuc thinks that it is the launch of the strawberry business that helped the village become alive again and gave it a chance for a better future. He is seeing qualified and eager to work young people choose to stay in Cunicea, and people who have worked for tens of years outside of the country, particularly in Russia, return home.





*As the capacities of local and national associations are limited, and vary in their level of development, HVAA applied an individual approach to provide organizational support to national and regional associations. The project organized a series of meetings to identify the needs and priorities to be addressed within project activities. An important element of support provided by HVAA to national associations was to consolidate internal communication between members and administrative bodies by organizing national conferences and developing capacity of sector associations to diversify services provided to their members. Regarding assistance provided to Water User Associations (WUAs), the project applied a step-by-step strategy to the two most advanced WUAs, addressing constraints identified during a complex assessment.*

**OBJECTIVE 3: STRENGTHEN CAPACITIES OF MEMBER-BASED GROUPS (PRODUCER GROUPS, WUAs, AND INDUSTRY ASSOCIATIONS) TO SERVE THEIR MEMBERS IN TARGETED VALUE CHAINS**

Recognizing the significant United States Government investment to rehabilitate the Centralized Irrigation System (CIS) under the Millennium Challenge Corporation (MCC) Compact, during Year 2, HVAA implemented multiple activities to drive demand for water from Water Users Associations (WUAs). Year 2 targeted two of the most promising CIS areas and associated WUAs: Cosnita and AcvaGrup. During the reporting period, HVAA assistance was strategically oriented to the landowners situated in the CIS Areas, and to the targeted WUAs' management.

Due to a number of factors - including lack of experience and knowledge about the benefits of irrigation - access to irrigation in Moldova is underutilized. To help producers benefit from existing infrastructure and to promote good irrigation practices, HVAA organized eight training events such as seminars, local study tours, and technical assistance related to fruit and vegetable production using irrigation. By closely organizing the events with WUAs at the forefront, HVAA helped WUA management to provide needed services for their members while building their capacity to replicate these types of trainings. Irina Racovet is a young landowner from CIS Cosnita and member of WUA Cosnita who recently started a fruit production business. HVAA provided technical assistance to Irina, advising on modern rootstock and pruning techniques, which she has since adopted. By working with exemplary farmers who understand the value of irrigation, such as Irina, HVAA hopes to showcase successes and inspire others to take advantage of the USG investment in the irrigation systems.

HVAA identified an opportunity to leverage activities with other donors such as the International Fund for Agricultural Development to increase the likelihood of sustainable irrigation use and the sustainability of the WUA itself. Respectively, HVAA presented a business concept for the construction of new irrigation infrastructure to expand coverage provided by the CIS area managed by WUA Cosnita. The business model

was deemed feasible, and the beneficiary group led by WUA Cosnita decided to apply for an International Fund for Agricultural Development (IFAD) VII Grant. HVAA supported the working group during the application process. The business concept to extend the irrigation area managed by WUA Cosnita was awarded an IFAD VII grant valued at approximately \$235,300. By extending the irrigation area, the WUA will be able to sell more water to farmers in need of irrigation and is on a direct path to financial sustainability.

HVAA commissioned diagnostic reports to identify reasons for low demand of irrigation services, including social and infrastructural constraints and opportunities, which were presented to members of the WUA AcvaGrup and WUA Cosnita in December 2017. Through a series of meetings, solutions were proposed to enhance WUAs' capacity for using the rehabilitated CIS at a higher efficiency rate. In parallel, HVAA delivered a series of trainings for the Cosnita WUA on irrigation technologies and practices for vegetables, fruit, and grains. Based on the studies for both Cosnita and AcvaGrup WUAs, HVAA drew the following conclusions:

### CONCLUSIONS ON THE DIAGNOSIS OF COSNITA WUA NEEDS

ADMINISTRATIVE/SOCIAL CONSTRAINTS	TECHNICAL CONSTRAINTS
<ul style="list-style-type: none"> <li>• Reduced organizational and financial capacity of water users of Pumping Station I Cosnita region.</li> <li>• Reduced capacity of water users to contribute to the modernization of Pumping Station I Cosnita.</li> <li>• Lack of cooperation between members of the association on merging parcels or crops to allow for irrigation at the same time and to use the irrigation system at its maximum capacity.</li> <li>• Lack of qualified specialists in agro-technical domain (extension services).</li> <li>• Limited producers' access to information regarding the possibility of accessing grants and other domestic and external funding in the agricultural domain.</li> <li>• Lack of interest in land consolidation and/or establishment of high added-value plantations.</li> <li>• Lack of markets for harvested production.</li> <li>• Lack of post-harvest management (sorting lines, refrigerators for storage of products, dryers).</li> <li>• Fear of failure in business, loss of investments or their non-recovery.</li> <li>• Lack of labor force in rural areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of pressure in the system.</li> <li>• The automatic pumping system is not adjusted to the required parameters.</li> <li>• The automatic system for data collection related to water and electricity consumption does not function.</li> <li>• The main flow meter in the pumping station is defective.</li> <li>• Low quality of irrigation.</li> <li>• The price for water consumption for irrigation is high.</li> </ul>

### CONCLUSIONS ON THE DIAGNOSIS OF ACVAGRUP WUA NEEDS

ADMINISTRATIVE/SOCIAL CONSTRAINTS	TECHNICAL CONSTRAINTS
<ul style="list-style-type: none"> <li>• Legal land issues within the irrigation system.</li> <li>• Legal obstacles to consolidation.</li> <li>• There is a need for more advanced business processes to access new markets.</li> <li>• Limited access to professional data (extension services).</li> <li>• WUA database issues.</li> <li>• Lack of field maps to facilitate better irrigation supply operation.</li> </ul>	<ul style="list-style-type: none"> <li>• A low demand pumping configuration is not available.</li> <li>• Low electrical efficiency due to large pump size.</li> <li>• Lateral pipeline configuration limits access to hydrants.</li> <li>• Poor reconciliation of diversion water meters with delivery meters.</li> <li>• Low level at SPI8 intake.</li> <li>• No equipment or know-how for small repairs.</li> </ul>

To remedy some of the above listed constraints and to increase water usage, HVAA approved two grants in the rehabilitated CIS Areas of Cosnita and Puhaceni. WUA Cosnita received two irrigation machines, and

WUA AcvaGrup will receive two medium-capacity pumps that will be installed in Y3. In addition, the Cooperative Agrogruprod, a member of WUA Cosnita were awarded a grant for onion harvesting equipment, which will dramatically reduce their dependency on labor during harvest and ensure better product quality.

**Enhance sector association capacity to better serve their members.** HVAA will interview five WUAs to complete the Organizational Capacity Assessment (OCA) questionnaire at the beginning of Y3: WUA Cosnita, WUA AcvaGrup, WUA Jorile, WUA Agrorufeni, and WUA Agroacvila. Based on the interview findings, the OCA reports will provide a roadmap for the project and the member organizations to implement prioritized improvements that will lead to higher scoring in the future, and will identify high, medium, and low priorities for each on-going objective.

HVAA assisted four sector associations: MFA, Table Grapes Association, Berries of Moldova, and the National Beekeepers Association in assessing their internal organizational deficiencies through the Organizational Capacity Assessment methodology. All four associations were interviewed, and an OCA questionnaire was completed. According to the OCA procedure, each association obtained a score based on a 1 to 4 scale that shows capacity level. Following this assessment, HVAA will assist the associations to solve capacity deficiencies such as internal policies and regulations, procedures and documentation, and other identified areas for improvement. In Y3, HVAA will also conduct a baseline assessment for Belii Most Association to ensure project interventions are strategic.

#### TABLE GRAPE VALUE CHAIN

HVAA supported the APESM to organize the National Table Grapes Forum. More than 120 grape growers from the Republic of Moldova discussed new practices in grape production for increasing the competitiveness of Moldovan grapes on regional and international markets. Through this event, APESM also advocated for government subsidies to support investments in intensive and modern grape production technologies.

HVAA extended its assistance to a regional sector association and started to support the APESM from Cahul (southern region of Moldova). Under a grant activity, the association developed its capacity to provide better services such as technical assistance and trainings to its members.



*Training on Gable trellis systems for table grape production*



## APPLES & STONE FRUIT VALUE CHAIN

HVAA assisted MFA to develop its institutional evaluation analysis and completed the OCA to determine the associations' capacity improvement needs. The reports were developed based on the information gathered from documents submitted by MFA, as well as from interviews with MFA members and staff. The OCA brought light to internal policies, regulations, and procedures which need to be developed and applied within the organization, and covers such areas as association good governance, management, human resources, and financial management. In Y2, HVAA supported the organization to establish internal policies related to employee salaries, as well as establish a timekeeping system for employees working on various billable activities for international donors.

HVAA supported MFA under a grant initiative to conduct the two-day Second Annual Fruit Business Conference, which was attended by 160 growers, cold storage operators, exporters, crop advisors, and representatives from governmental institutions. More than 20 international and local speakers, including two HVAA staff members, shared their knowledge and experiences on a wide range of topics, from export market trends to innovative production and post-harvest technologies.

HVAA offered grant support at MFA request through a series of five distinct projects. Through these activities, MFA offered their members the possibility to be trained in the most advanced, crop-specific technologies related to growing, PHH and quality standards application, as well as receive support for marketing efforts on regional and international marketplaces such as Northern Europe, the Middle East, and Romania.

## HONEY VALUE CHAIN

Based on the needs and priorities identified through HVAA's Organizational Capacity Assessment, the project assisted NBARM to conduct workshops with members to carry out the Association's strategic planning. Prior to HVAA's assistance, the Association

lacked a clear common purpose and vision. The strategic planning exercise was therefore transformational for the organization and will lead to better member services and higher membership demand. In addition, NBARM was assisted by HVAA to develop its internal order regulations, staff hiring procedures and contracts, and acquisitions and inventorying procedures.

HVAA supported NABRM to organize and host the National Beekeepers' Forum in Chisinau, arguably the most important event for the sector in Moldova. More than 300 beekeepers from all over the country were in attendance. In addition, honey producers and unions from Romania were



*More than 300 participants at the National Beekeepers Forum*

among those in attendance, which allowed beekeepers from both countries to network and learn from one another. Local and foreign experts shared best practices for increasing honey productivity, fighting diseases, and accessing governmental and donor support. After the forum, four district associations expressed their intentions to join the national association, with the registration process under way. In addition, a large number



of small unregistered beekeepers took advantage of the available support and were assisted by NBARM to become registered entities. At the beekeepers' request, a similar event was also organized in Northern Moldova in Balti, with 130 participants. As a result, NBARM increased its membership from 15 district beekeepers' associations to 22. Due to HVAA support, NBARM is well equipped to provide new assistance to its members such as conducting professional trainings. The Association obtained an office and managed to contract two project coordinators as staff, a major milestone for the organization. With HVAA's partnership to implement the Vertical Hive Demonstration and Training Program grant, NBARM's president said that, "USAID has brought the association back from the dead."

HVAA provided assistance to a group of ten Moldovan honey processors and exporters to analyze the possibility of forming an association to promote their marketing and sales efforts. The group was assisted to self-identify by clarifying several straightforward questions: why the association is needed (its mission); what the member needs/problems are to be solved; and how the association will be sustained. After these questions were answered, the group decided to register a new body. HVAA is assisting the group with drafting its statute and other documents for registration.

### BERRY VALUE CHAIN

HVAA assisted the Berries of Moldova Association to build a better organizational strategic vision by facilitating the Association's board to conduct a series of Strategic Planning workshops. HVAA also provided support to develop personnel-related documentation and hiring procedures, such as job contracts, job descriptions, and recruitment procedures. The project assisted the Berries of Moldova Association in making the cardinal decision to make needed structural changes for revitalizing its activities so that it can better serve its members. An ad-hoc General Assembly was facilitated, and new management was elected. The Association



Summer Berry Fair

decided to update the list of its members; the organization facilitated a presidential resignation and elected a new president; the association's statute was modified; and the organization elected the Censor Board. The

new president, Mrs. Aneta Ganenco was elected and officially registered. To increase BoM's capacity to diversify services provided to members and non-members, HVAA offered a grant to organize a series of relevant trainings including several live on-line video trainings with Dr. David Picha, a professor at Louisiana State University and berry expert. BoM members were trained in the most advanced strawberry-specific growing technologies. The project also provided the association with all required equipment to conduct trainings as well as supported the organization to

identify and arrange an office. Under a grant activity, BoM conducted the Second Annual Berry Sector Conference. Sector evolution, regional market opportunities, food safety and labeling requirements, and new varieties of berries to be grown were among the main conference topics. HVAA's berry production specialist

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#### Summer Berry Fairs:

- over 9,000 visitors
  - 6,000 kg of fresh berries sold
  - \$37,961 sales
-

from the USA shared knowledge related to modern berry production technologies. The Conference also brought in two Italian specialists who provided information on important technological and marketing aspects in growing and selling strawberries and raspberries. With HVAA support, AgroTV Moldova broadcasted a comprehensive television program about practices presented during the conference to share lessons with a wider audience.

HVAA supported the BoM to continue the tradition of organizing three berry fair events in Summer 2018. Events were aimed at promoting local berry consumption and educating consumers on the benefits of buying well packed and correctly labeled, high quality berries through organized retail. The events were organized through extensive promotion in traditional media and through social media, including on Berries of Moldova's Facebook page. The three events were successes, with over 9,000 visitors and more than 6,000 kilograms of fresh berries sold, with the total sales of \$37,961. During the events, 22 berry growers and members of Berries of Moldova and Belii Most Association (from Transnistria) sold their products and educated consumers about the benefits of berry consumption. Berries of Moldova Association also established a booth, and provided information on how to become a member, as well as encouraged entrepreneurs to begin cultivating berries. Recognizing that nascent organizations need a culture of volunteerism to survive, HVAA required board members to work at the booth, help organize receipting logistics for a refrigerated truck, as well as deliver promotional materials and equipment for the fairs.

HVAA supported Belii Most Association to strengthen producer groups and implement a project that grouped ten strawberry producers (association members) to grow the same varieties, apply the same technologies, and to jointly sell strawberries in larger quantities with better quality and at higher profits. Strawberry growers were provided with mulching and drip irrigation material for a total surface of 10 hectares, at 1 hectare per each member. At the same time, the Association was granted all necessary equipment to train their members through a series of specialized trainings on strawberry growing throughout all seasonal phases.

HVAA also provided its support to Belii Most Association to engage in advocacy on behalf of its members. Main policy issues raised by Belii Most Association included customs duties imposed on transportation and marketing efforts of producers from Transnistria to the Republic of Moldova, and the creation of producers' cooperative (producer group) that consists of berry producers from Transnistria and other regions of the Republic of Moldova.



HVAA facilitated sector associations' greater involvement in governmental decision making processes, which has led to the endorsement of several public decisions by the Government or sector public authorities that improve the regulatory environment for the private sector. Related to workforce development, HVAA assisted educational institutions to develop their curricula, technical capability, and improve their facilities. HVAA also focused its efforts on developing an efficient model to link educational programs with the private sector in targeted value chains. During Y2, HVAA facilitated 13 partnerships valued at \$1.5 million in investments.

#### **OBJECTIVE 4: IMPROVE THE ENABLING ENVIRONMENT LEADING TO INCREASED INVESTMENTS AND AN IMPROVED WORK FORCE IN TARGETED VALUE CHAINS**

##### **Sub-Objective 4.1: Increase Private Sector Linkages with the Education/Research Sector, Leading to a Competitive Workforce in Targeted Value Chains**

**Develop new modern occupational profiles and curricula responding to private sector needs.** HVAA initiated a series of activities aimed to develop the required occupational profile for a new work-based program in irrigation, which was identified as a knowledge gap in the project's Workforce Skills Needs Assessment. The project discussed the draft occupational profile for irrigation-related specializations and curricula with main stakeholders including fruit producers, WUAs, Apele Moldovei Agency (Water of Moldova Agency), irrigation companies, the Sustainable Development Account, and national consultants. The draft documents were submitted to the Ministry of Education, Research and Culture for approval. This is the first time that curricula to develop qualified workforce (technicians/operators) in irrigation systems has been developed and presented for approval to the sector authorities. Based on the developed curricula and the concept for its implementation, HVAA intends to help establish a laboratory on advanced irrigation technologies at the Agriculture University of Moldova which will serve as a training center for agricultural students, farmers, and members of the WUAs. In addition, the laboratory will serve as a base for conducting research for MSc and PhD students. The Center of Lifelong Learning, which is part of the same Irrigation Department, will serve as a host of qualified technical speakers from private irrigation dealers.

National consultants worked on enhancing curricula for table grape production based on recommendations from HVAA's Workforce Skills Needs Assessment. As a result, a Department Council Meeting was organized for the Horticulture Department of the Agriculture University to approve a set of recommendations that were proposed, and later incorporated into the curricula. The curricula will serve as a reference for curricula



updates at the Center of Excellence in Viticulture and the Nisporeni Vocational School, where grape production courses are also delivered.

Recognizing the need to engage more students in agricultural educational tracks, HVAA is focusing its efforts to support vocational schools to attract and develop the next generation of Moldovan farmers and agri-business leaders. HVAA supported Nisporeni Vocational School to strengthen their berry curriculum in 2018. HVAA's international berry production consultant evaluated the existing educational programs, as well as the established design concepts for a new work-based vocational education and training system. The consultant also proposed potential upgrades in curriculum, infrastructure, and the establishment of business-education partnerships in line with HVAA's objectives for the berry value chain. Under a workforce development grant, HVAA is establishing a new laboratory for berry production at the school.

To improve the curricula for beekeepers, HVAA's international consultant visited the Bubuieci Vocational school, where young beekeepers are trained. As a result of the visit, the expert presented a concept to establish work-based curricula for beekeeping, as well as the incorporation of skills-based learning into the educational program. The school administrative was incredibly receptive and is working to address various components presented in the concept.

**Engaging youth in agriculture.** Recognizing that agriculture has enormous potential to provide quality income for youth in Moldova, who are prone to emigration, HVAA awarded grants to several institutions to engage youth in agriculture. Through HVAA grant funding, DNT Association launched the first Agro Challenge Hackathon to connect youth from agricultural schools with information technology professionals to pinpoint and identify IT solutions for common agricultural programs and will hold a national-level competition in Y3. During the first sessions, which focused on 'Design Thinking in Agriculture,' youth and industry leaders used a design thinking methodology, which provides a solution-based approach to solving problems.

With HVAA grant support, ProEtranse NGO developed specialized software for HVA budgets specific to Moldova and will run a series of training courses for university students and young farmers that will better equip them to act as financial planners in the workforce or start their own businesses during Year 3. Under an additional grant for youth engagement, NGO Infoconsulting, a NGO, will teach students at the Agricultural University to design new multi-annual fruit and table grape plantations using GPS technology in Year 3.

Belii Most Association received a grant to deliver a hands-on berry production training course for agricultural college students and established an internship program with Belii Most Association members, enabling the students to learn practical skills with industry leaders. As part of the Belii Most grant, the Association purchased a greenhouse for students at Tiraspol Agrarian College to learn practical production skills. The project brought together youth from Tiraspol Agri-Technical College and Belii Most Farmers Association members with the aim of enhancing entrepreneurship among youth and women in the production of high-quality berries. One of the participants indicated in her questionnaire, "Thanks to Belii Most, I think I've decided on what I will do in the future [after graduating]."

Throughout its activities, HVAA continually supports youth in agriculture by creating more opportunities to stay in Moldova and run their own businesses or to acquire the knowledge and skills necessary to find a well-paying job without leaving the country. In August, HVAA launched an empowering video for youth entitled, "Good Incomes are Possible in Agriculture," which shows how young people from Moldova turn their passions into profit.

**Increase the qualifications of the students by developing technical capability and infrastructure of the educational institutions.** To learn from international experience, HVAA brought eight stakeholders, including representatives from agricultural educational institutions and the Ministry of



Agriculture, to the Netherlands for a six-day study tour on workforce development. The study tour provided an opportunity for key actors in Moldova's educational sector to learn best practices in workforce development, particularly for high value agriculture in national agricultural educational institutions. During the tour, the group visited agricultural schools, the University of Wageningen, as well as private agricultural companies involved in workforce development initiatives. HVAA shared conclusions of the study tour with relevant stakeholders and fostered actionable agreements for the most critical next steps to support the agricultural education sector.

To address the lack of qualified workforce for HVAA's supported value chains, the project initiated a series of activities to improve educational techniques in Moldova based on private sector needs. With continual technical assistance from HVAA, Nisporeni Vocational School (NVS) rolled out a new horticulture curriculum, with a focus on berry cultivation. To draw youth toward careers in agriculture, HVAA partnered with Nisporeni Vocational School to organize an "Open Doors" event on May 28, 2018. The event was promoted with the slogan "Be AgriCOOL!" and was designed to orient potential NVS students toward agricultural occupations. In addition, HVAA assisted NVS to develop its technical capability under a grant activity, which aimed to equip a laboratory related to teaching berry production technology and improve a greenhouse for practical classes for pupils in agricultural occupations.

Under a workforce development grant, HVAA provided Bubuieci Vocational School with 15 bee hives, IT equipment, woodworking and welding equipment, and protective clothing to establish a skills-building laboratory/workshop. New and fully equipped school laboratories will provide more opportunities for pupils to learn practical skills related to managing a modern apiary business. HVAA has also connected the school with the NBARM Vertical Hive Demonstration and Training grant activity, and more than 13 pupils participated in trainings offers by the Association.

HVAA is providing support to the State Agrarian University of Moldova to improve their didactical apiary and the beekeeping lab, which will offer students from four specialties the opportunity to improve their knowledge in using new lab equipment and initiate research activities under Master of Science and PhD programs. At least 18 students visited three HVAA beekeepers to observe honey production using vertical hives.

To ensure a better transfer of practical knowledge from farmers involved in targeted value chains, HVAA facilitated student visits to grantees who promote innovative practices and advanced



*Students from Bubuieci Vocational School learning beekeeping practices*

technologies that can be used by youth to increase their qualifications after completing their education. Thus, pupils from Bubuieci Vocational School studying beekeeping visited beekeepers who benefited from vertical

hives under an HVAA grant activity. Pupils from NVS visited berry producers and berry nurseries to learn about preparing planting material for strawberry plantations.

**Facilitating the synergy for workforce development.** HVAA initiated vetting discussions with major international donors, organizations implementing agri-projects, representatives of MARDE, and the Agricultural University. Main points for discussion included assistance needed for the Center of Excellence in Horticulture and Agricultural Technologies to perform its role of preparing a highly skilled workforce for the agricultural sector as well as to serve as a promoter and disseminator of agricultural innovations in the sector. The Moldovan Government received approximately \$120 million as a loan from European Investment Bank, in part to potentially upgrade the Center of Excellence. To identify problems that need to be addressed to increase the quality of the educational programs and the efficiency of investments from the Orchard of Moldova program, HVAA carried out a Feasibility Study for the Center of Excellence in Horticulture from Taul. The study maintained that financial support to laboratories and demonstration plot infrastructure is less effective without interventions at the management level of the Center and an increase in human resources capacity. That is why HVAA will support the Center by providing assistance for curricula development in partnership with other donors in the event that Orchard of Moldova implements the project.

HVAA conducted a feasibility analysis for a Farm Crew Service business model in Moldova and will work with farmers, farm service providers, and educational institutions (State Agrarian University, Stauceni College of Vine and Wine) to develop a detailed business model with findings and recommendations. A Farm Service Crew business model would address many production and harvest issues in Moldova, as businesses struggle to find reliable, trained labor during key periods, which can lead to major profit losses. HVAA organized a focus group with 12 stakeholders to discuss access to organized, official, and quality farm crew services; farmers' needs/demands; and feasibility to organize these services. As a result, HVAA developed a preliminary business model in three variations and presented a narrative of the model for feedback to the main stakeholders. Based on this feedback, HVAA concluded that this model is not sustainable at this time because the structure of labor taxes creates financial pressure on companies providing such services. This concept is going to be discussed in conjunction with Law No. 22 from 23.02.2018 (Daily Labor Law), which will be the subject of an amendment in March-April 2019. HVAA plans to be facilitated amendments to two main stipulations of the Law: (i) to extend the total number of days worked by a seasonal worker to 180 per year (currently it is 90 days total) and (ii) to allow private companies to contract specialized farm service companies directly (currently private companies can only directly hire daily unqualified workers).

## Sub-Objective 4.2: Increase Investments and Establish PPPs to Address Value Chain Gaps

During Year 2, HVAA developed 13 partnerships valued at a total value of \$1.5 million. Partnerships covered all five project value chains, focusing on export promotion, technology transfer, production of certified and seedless table grape seedling material, organic honey production, contract farming, and also include cross-cutting partnerships to streamline media, and develop professional school/youth educational programs. Many partnerships were driven by grants, while others led to organizations applying for grants. Twelve partnerships are expected to continue and evolve during FY19.

HVAA PPPS 2018			
SECTOR	PARTNERSHIP TITLE	PARTNERSHIP DESCRIPTION	PARTNERS
<b>Apples Stone Fruit Table Grapes Honey</b>	HVA Export Promotion Partnership	USAID has partnered with MIEPO and MFA in promoting Moldovan HVA products at International Fairs.	1) MFA 2) Moldova Investment Association (MIA)
<b>Apples Stone Fruit</b>	Technology Transfer and Educational Interventions in the Moldovan Fruit Sector	Facilitate knowledge transfer for innovative technologies and practices through local trainings and international study visits in the apples and stone fruit sector, as well as motivate young people to start businesses through the establishment of a 'Moldova Fruct Association Young Growers Club'.	1) MFA 2) International Technology and Input Suppliers 3) Local Technology and Input Suppliers
<b>Table Grapes</b>	Production of Certified Table Grape Seedling Material	USAID, MARDE, ONVV, and HEKS-EPER Moldova have established a partnership to create a market-driven system for the production of certified planting material to sustain long-term competitiveness of the Moldovan table grape and wine sectors.	1) ONVV - Moldovan Government through MARDE 2) MARDE - Moldovan Government through Ministry of Agriculture 3) HEKS-EPER Moldova 4) HRI
<b>Table Grapes</b>	Partnership for Testing and Introducing Seedless Table Grape Varieties	A MD-US partnership between MD Horticulture Research Institute, Geneva Research Station of ARS-USDA, and Cornell University to bring multiple US-bred seedless grape varieties to Moldova for field testing by the Institute and subsequent sales by private nurseries.	1) Horticulture Research Institute 2) Cornell University (USA) 3) ARS-USDA
<b>Table Grapes</b>	Promotion of intensive grape production and post-harvest technologies through partnerships	Promotion of intensive grape production and post-harvest technologies through establishing partnerships bringing together crop advisors, technology suppliers, and leading growers.	1) APSM Cahul - Cahul 2) Grape growers and cold-storage operators 3) Technology and Input Suppliers
<b>Honey</b>	Organic Honey Production - Regina Naturii Grant	Under this partnership, 45 beekeepers from throughout Moldova will receive the necessary technical training and mentorship that will enable them to obtain Certificates of Organic Production.	1) Regina Naturii LLC 2) 45 beekeepers 3) Ecocert JSC

<b>Honey</b>	Organic Honey Production - Apicola Lux Grant	Under this partnership, 30 beekeepers from throughout Moldova will receive the necessary technical training and mentorship that will enable them to obtain Certificates of Organic Production.	1) Apicola Lux LLC 2) 30 beekeepers 3) Agreco R.F. Goderz JSC
<b>Honey Cross-cutting</b>	Updated skills and knowledge in the beekeeping sector through the Bubuieci Vocational School	Under this PPP, the beekeeping sector of Moldova is assisted to address the needs of continued education for the industry's staff as well as contribute to enhanced skills and knowledge of graduates of VET and upper educational institutions.	1) Bubuieci Vocational School 2) NBARM 3) Technology High School from Piatra Neamt (Romania)
<b>Berries Cross-cutting</b>	Updated skills and knowledge in the berries sector through the Nisporeni Vocational School	Under this PPP, the beekeeping sector of Moldova is assisted to address the needs of continued education for the industry's staff as well as contribute to enhanced skills and knowledge of graduates of VET and upper educational institutions.	1) NPI 2) BoM 3) Berry growers
<b>Berries</b>	Updated skills and knowledge in the berry sector through the Belii Most Association	Under this PPP, the berry sector in Transnistria and Moldova is assisted to address the needs of continued education for the industry's staff as well as contribute to enhanced skills and knowledge of graduates of VET and upper educational institutions.	1) Belii Most Association 2) Agrarian Technical College in Tiraspol 3) Strawberry producers from the Left Bank
<b>Berries</b>	Summer Berry Fair Campaign - 2018	HVAA has facilitated a partnership between local and donor partners to collectively organize a berry consumption promotion campaign at the national level. Summer Berry Fair events were initiated in 2017 and continued in 2018.	1) HEKS-EPER 2) Berry producers 3) BoM
<b>Vegetables</b>	Contract Farming Promotion	Under this partnership, three farmers will implement modern open-field production of tomatoes and cherry tomatoes for processing and canning and the retailer will build a group of reliable suppliers.	1) Orhei Vit JSC - Processor 2) Three vegetable producers (Family Farms) 3) Enza Zaden JSC
<b>Cross-cutting</b>	Production and broadcasting of mass-media educational programs	Support the development and production of innovative media solutions for educational programming targeting Moldovan farmers.	1) AGRO TV 2) Industry Associations



### **Sub-objective 4.3: Improve the policy and enabling environment for selected value chains**

HVAA completed its Legal and Regulatory Framework Assessment, which identified the legal, regulatory, and administrative (procedural) issues, barriers and constraints, and provided solutions for reducing legal and administrative burdens on agricultural producers and offered potential solutions for improving or simplifying regulations and procedures. HVAA presented the findings to a wide audience, including public authorities, research institutions, industry associations, and farmers. Key findings from the Assessment determined that there are regulatory barriers which pose challenges for registering new plant varieties, obtaining water use authorization, and producing certified planting materials. HVAA uses the Assessment to support key stakeholders to implement interventions that address prioritized regulatory issues in Moldova.

HVAA provided regular updates to industry associations on the latest changes in legislative framework that are relevant for HVAA's value chains, mainly in relation to the seasonal workforce in agriculture and meal tickets, a recently approved requirement by the Parliament that will directly impact employment in the targeted value chains. Thus, HVAA provided detailed descriptions and an explanation of the new legal provisions to the industry associations, who channeled the information to their members. In addition, HVAA held information sessions to increase awareness of beneficiaries regarding specific rules on new legal requirements regarding employment of seasonal workers in agriculture, their remuneration, registration, and reporting.

HVAA facilitated discussions with key sector stakeholders and government authorities on new legal provisions related to seasonal agriculture workers in Law No 22/2018, including certain unqualified seasonal activities performed by day workers. Several weaknesses and constraints were revealed by participants from the private sector. As such, HVAA will lead a consultation process with stakeholders, industry associations, and public authorities to address the issues identified. While it is not entirely uncommon for roundtable discussions to occur between the government and private sector, meetings often end with no actionable resolutions. At the end of the meeting, several stakeholders committed to be involved in a working group that will propose solutions and/or modifications to the upcoming requirements.

## TABLE GRAPE VALUE CHAIN

Due to HVAA's efforts provided to APESM to advocate for state subsidies for adopting modern technologies such as Pergola and Gable trellis systems, the Government recently approved amendments to the subsidy regulation that will provide table grape producers with greater possibility to invest in the intensive technologies.

## HONEY VALUE CHAIN

HVAA continued to play an active role in organizing and facilitating meetings for the Honey Board, established by MARDE, that is comprised of representative producers, processors, exporters, and distributors of natural honey, MARDE, Ministry of Finance, the Ministry of Economy and Infrastructure, and the Competition Council. As HVAA is one of the most relevant stakeholders in the honey sector, an HVAA representative was elected as a member of Honey Board. One of the main issues faced by honey sector that has been discussed by Honey Board is related to limited beekeeper access to nectar-bearing plants in forested areas. To address this, MARDE and Forestry Agency "MoldSilva" were advised to revise current legal and regulatory framework to facilitate beekeeper access to nectar-bearing plants and to provide proper amendments if needed. "MoldSilva" Agency has recently revised the legislation according to beekeepers' proposals.

HVAA provided its substantial support to MARDE to develop quality requirements for honey by-products. For this purpose, HVAA led the process of drafting regulations on quality standards for honey by-products, such as bees' wax, propolis, royal jelly, and pollen intended for human consumption, with the main objective to establish a proper regulatory framework for honey by-products that will provide quality and safety requirements for these products.

The drafting process consisted of:

- analysis and assessment of the existing quality requirements for honey by-products in the EU, which provide the most appropriate honey by-product examples for Moldovan producers and processors;
- development of quality requirement drafts for honey by-products congruent with best EU and international practices;
- vetting workshops with the participation of key stakeholders relevant to the honey sector, such as NBARM, small and large beekeepers, processor/exporters, MARDE, and ANSA.

HVAA supported NBARM to select the most relevant and urgent regulatory issues to be advocated according to findings provided within the project's Assessment (mapping), as well as recommendations regarding legal, regulatory, and procedural problems and constraints within the honey sector. As a result, HVAA assisted NBARM to formulate and submit its position paper regarding MARDE's draft of the National Program on

## Successfully advocating for agricultural policy improvements



As a result of USAID/HVAA's lobby and advocacy activities, the Moldovan Government has approved, for the first time, public subsidies for investments related to intensive technologies for table grape production such as Pergola and Gable trellis systems (estimated investments in Pergola trellis system per hectare is over 600,000 MDL (\$36,000)). These systems offer multiple advantages to farmers, including up to four-times higher harvest and premium quality grapes. Due to USAID/HVAA's efforts, more producers are now motivated to adopt modern technologies by expanding new table grape production methods.

Apiculture Development, and amendments to subsidies regulations, including additional subsidies and increases to budget allocations for the apicultural sector.

### BERRY VALUE CHAIN

HVAA assisted BoM to identify the most relevant and urgent regulatory issues to be advocated for. The priorities were selected based on the legal, regulatory, and procedural constraints and barriers in the berry sector which were revealed in the Assessment (mapping) of current regulatory framework and administrative procedures related to targeted value chains.

HVAA is continually fostering a greater climate of private sector involvement in governmental decision making, both by empowering the private sector to use its voice, and by facilitating organized platforms for authorities to work with their constituents. The project helped organize a public consultation meeting to discuss MARDE's draft of new rules and requirements for designing and planting orchards and berry plantations, based on existing best practices. During the consultation, MFA, BoM, and representatives from design companies provided opinions and proposals to improve the draft regulations. In addition, HVAA provided its support to MARDE to develop a Regulatory Impact Assessment and to assist the Ministry with the official endorsement process.

Meanwhile, with HVAA advocacy support, subsidy regulations were amended and significant changes for the berry value chain were approved by the government. According to the new norms, plant density was increased for berry plantation establishment (from 45,000 units to 50,999 units per hectare), which will encourage producers to adopt intensive production techniques.



## BROTHERS' BUSINESS

### BUZZING

Brothers Mihail and Tudor Zlatov have been beekeepers since they were children, helping their father and grandfather with their hives. However, when it came time to earn a living as adults, both brothers emigrated to Europe in search of better employment opportunities than they could find in Moldova. While abroad, the brothers noticed how much honey Europeans consumed, and in 2012, 27-year-old Mihail returned to his home in Bășcalia in southern Moldova determined to start a beekeeping business. Brother Tudor, 31, decided to join the new family business two years later.

Starting with five old hives in 2012, the brothers' business grew to 264 hives by the beginning of 2018. The Zlatov brothers pack and sell their honey, which is sold in supermarkets in Chisinau as well as to a chocolate factory and several restaurants. To supplement the income they make from honey, they also provide pollination services for a fee to apple and rapeseed growers in southern Moldova.

To ensure the growth of their business, the brothers spent the winter months in Italy, working as sessional workers to earn extra capital to invest in the business. Very soon, with the help of the USAID High Value Agriculture Activity, the brothers will be able to remain in Moldova fulltime.

The Zlatov brothers recognize they need achieve economy of scale to achieve their goal of exporting to Europe – where they know demand is strong. Switching from traditional hives to modern vertical hives is a necessary step to increase yields and improve efficiency. To support this goal, the brothers received 80 hives each under the NBARM grant from the USAID High Value Agriculture Activity, which is working within the honey sector as part of its efforts to stimulate the transformation of high-value agriculture sector into an engine of economic growth for the country, leading to improved competitiveness and higher living standards for rural Moldovans in the long term. In addition to the hives, the brothers benefited from training seminars where they learned the latest hive management techniques as well as up-to-date pest control practices to eliminate contamination of the honey with illegal residues. As they attended HVAA beekeeping training sessions, they also met beekeepers from all over Moldova to learn new techniques and to build a nationwide network of active and informed beekeepers.

"The advantages of vertical hives are obvious. It is about making time and labor management more efficient, but the most important thing is the high quality of honey," said Mihai. By having modernized apiaries, the Zlatov brothers want to export honey and apiculture products to the EU countries, which will provide them with larger incomes and more opportunities to continue developing their businesses at home.



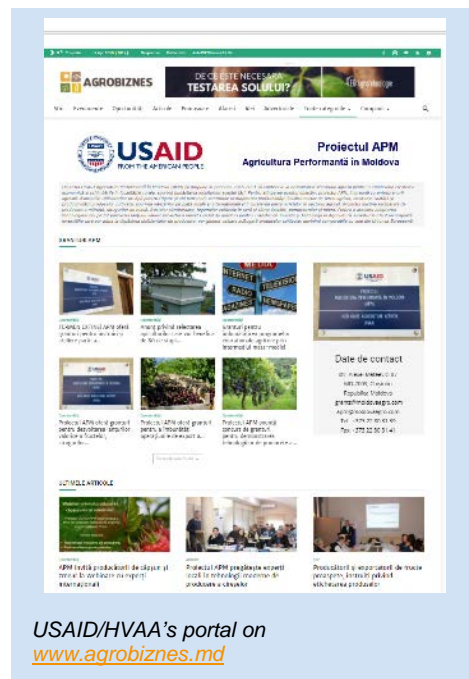


## CROSS-CUTTING ACTIVITIES TO SUPPORT IMPLEMENTATION

### COMMUNICATIONS

HVAA continued to promote good agricultural practices in national and international mass-media. HVAA's experts also contributed to TV programs related to relevant agriculture issues. Two grants to increase the promotion of the new technologies in the targeted value chains were awarded to Agro TV Moldova, a national TV station with national coverage, and TV Media, a regional TV station which broadcasts in the southern region of Moldova. Starting in Y3, the two TV stations will update their broadcasting programs with new educational programs to showcase best practices used in the targeted value chains, promoting experiences of HVAA beneficiaries and grantees, and encouraging young farmers to adopt advanced technologies.

HVAA established a portal on a major online agricultural media outlet, [www.agrobiznes.md](http://www.agrobiznes.md) to widely promote best practices in high value agriculture. Agrobiznes publishes and disseminates HVAA-specific information about implemented activities, grant calls, and promotes advanced technologies in the targeted value chains. By using this tool, HVAA is able to reach a large audience of farmers and other stakeholders.



USAID/HVAA's portal on [www.agrobiznes.md](http://www.agrobiznes.md)

The thematic Facebook page Agricultura Performanta in Moldova, managed by HVAA, reached a milestone of more than 1,246 followers in Year 2. The page has become known as a platform for farmers and agricultural industries. The largest demographic of people who “liked” and followed the project’s Facebook page (<https://www.facebook.com/agricultura.performanta/>) are young people ages 25-34 and 45% women.

Total Page Likes as of Today: 1,246



The most viewed post on the Agricultura Performanta Facebook Page is a film promoting the involvement of youth in agriculture. Over 10,000 people were reached and the post was shared by 37 visitors.

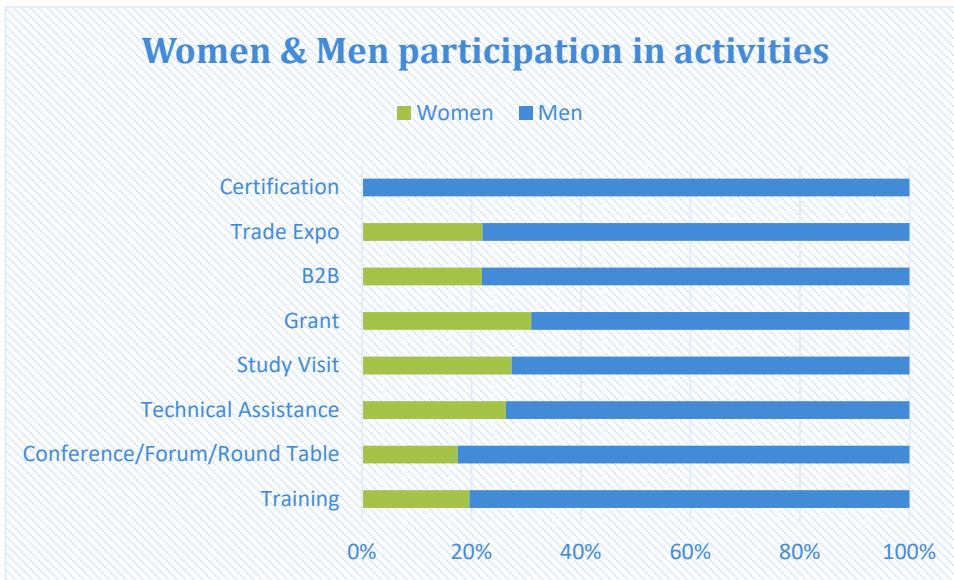
Beginning with the onset of the agricultural season, local mass media showed a higher interest for USAID/HVAA activities. The most active media institutions to promote agricultural news are the specialized platforms: Agrobiznes, AgroTV Moldova, AgroExpert, AgroConect, and East-fruit. Media are particularly interested in human stories, including stories on farmers who adopted new technologies and obtained solid results in agricultural activities. HVAA continually shows project results, its impact on local farmers, and emphasizes the generous support of the American people that is transforming the Moldovan agricultural sector.



**INCLUSIVE DEVELOPMENT**

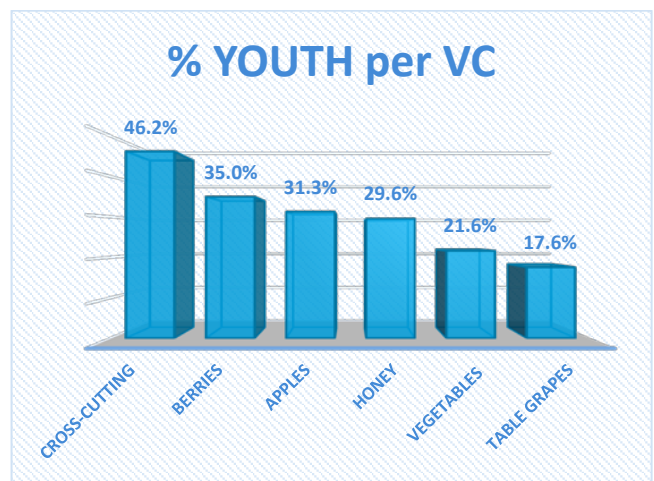
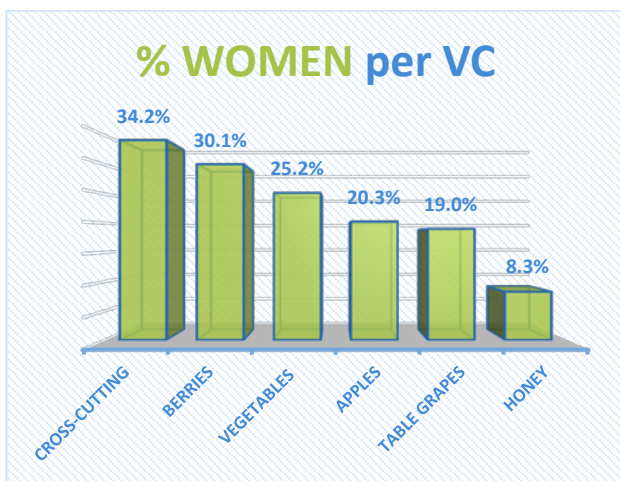
Cumulatively to date 22 percent of participants were women and 30 percent were youth. Beneficiaries participated in 428 HVAA-sponsored events and activities. The tables below provide disaggregated information.

Women were active in most events. Thirty percent of the grants during this period were signed with women-owners or women-administrators, and a similar or higher proportion of end-beneficiaries are women, as the grant programs often require greater female participation.



Due to the vertical hives grant activity (20 percent of hives beneficiaries were women), the number of women involved in the honey value chain increased considerably. HVAA organized women-focused study tours for women from the Acva Group and Cosnita WUAs to plantations in

the rehabilitated irrigation system areas to learn more about berry production and irrigation techniques. A high percentage of women and youth were integrated into Belii Most demonstration visits and learning events, as well as in the agriculture education through media campaigns and youth engagement specific grant-funded activities and events. The distribution of women and youth participants per value chain are presented in the charts below.



Cross-cutting and Berries value chains had the highest concentration of youth participation during the period.

HVAA participated in the Empowering Women USAID Campaign in March 2018. Maria Vedrasco, a project grantee, president of a table grapes business cooperative, and owner of a cold storage and table grape plantation was highlighted in the campaign. HVAA awarded a grant to Maria’s business that will enable her to provide international-quality packaging for table grape exporters across Moldova.

HVAA delivered a training on inclusive development to BoM during one of their Strategic Planning sessions, presenting findings from HVAA's Gender Assessment Report and intervention points for the berry sector. Participants completed a questionnaire addressing the status quo/baseline assessment of the organization's level of inclusiveness. Participants also learned about the importance of involving and promoting youth, women, and disabled persons in their activities.





## A WOMAN WHO OPENS ALL DOORS

USAID/HVAA grantee, Maria Vedrasco is the manager of the cooperative “VED-MAR AGRO” in Milestii Mici village, Ialoveni rayon. The cooperative’s core business is storing, processing and packaging of agricultural produce, primarily table grapes.

Three years ago, Maria joined forces with four other grape producers in Costeti village to form the cooperative. They united to meet increasingly demanding market volume and quality requirements, and in the beginning, it was a real challenge. But even more challenging for Maria was to be appointed manager of “VED-MAR AGRO” by her partners. She was surprised at the decision of the other members, most of whom are men, to entrust her with the management of the business. She earned her position with her knowledge in economics, work experience and perseverance. Her colleagues’ belief in her gave her the determination



to find solutions to challenges. “I don’t know everything,” she admits, “but I keep learning. If I have a problem, I open all doors to handle it.”

Despite initial difficulties, the cooperative now owns and operates a state-of-the-art cold storage facility with five rooms and a total capacity of over 350 tons. They store grape varieties including Moldova, Victoria, Alb de Suruceni, Codreanca, Arcadia, grown by the cooperative members, as well as by other farmers in the region. There is also a pre-cooling chamber and a sorting and packaging line, which allows them to deliver a product that will meet commercial requirements.

The positive results achieved by uniting have inspired other farmers to join “VED-MAR AGRO,” and the membership has grown from four to seven.

Mrs. Vedrasco is proud of what the cooperative has achieved so far, but she is determined to continue to upgrade their post-harvest handling infrastructure, to increase the competitiveness of their grapes, and to expand exports to non-traditional markets. “The European market offers us a lot of benefits for exports, including the preferential quotas for the export of Moldovan grapes and we want to make use of these opportunities. Today we can increase the exports to Romania and also export to Poland – and even Austria,” Maria says optimistically.

“VED-MAR AGRO” is a member of the Association of Grape Producers from Costesti. Representatives of the association recently took part in a commercial mission to Vienna, Austria, organized with the support of the USAID/HVAA in Moldova, where they discussed the possibility of exporting Moldova grapes to the EU member states with Greenyard, one of the world’s leading produce handlers.



Last year the cooperative sold its grapes in Moldova, Russia, and Romania; the members want to increase exports to the European market because of the more attractive prices it offers. The cooperative, however, is still struggling to meet packaging and food safety requirements – core issues in the export markets. Mrs. Vedrasco persuaded the cooperative members to apply for grant assistance from the USAID/HVAA project to buy equipment to produce customized cardboard boxes to meet international packaging standards. “We have noticed from our experience that the more attractive the

packaging is - the higher the price of our grapes,” Mrs. Vedrasco claims. With the new equipment in place, the cooperative produces packaging in line with the European requirements for its own grapes and also for tens of additional producers in the area.

Another concern of Maria, as the manager of “VED-MAR AGRO” is to ensure the implementation of international standards and proper certifications. Assisted by the USAID/HVAA project, the cooperative will implement the standards for ISO 22000 certification and the food safety management system based on the principles of HACCP to demonstrate that the produce is safe to eat and does not pose a health hazard to consumers. Finally, the members of the cooperative will also receive assistance in the implementation of GLOBALG.A.P. standards. Compliance with all these requirements will facilitate the export of their agricultural products to the European markets and beyond.

Despite all these successes, the most meaningful result of Maria’s hard work is that both of her sons have returned to Moldova to join the family business. The young men were living in the U.S. but have come home due to the newly created opportunities at “VED-MAR AGRO” under the leadership of their inspiring mother.

## MONITORING AND EVALUATION

Following recommendations from the COR, the Project Monitoring and Evaluation Plan (PMEP) was amended, the new document being approved on August 2, 2018.

The summarized amendments can be found in the table below:

PMEP AMENDMENT. MAIN CHANGES	
CHANGE	AFFECTED INDICATOR
Disaggregation of sales added:	Ind. 3 (Sales from the National Statistics)
1) Traditional (Ru, Bel, Ukr., Kaz.)	Ind. 4 (Sales facilitated by HVAA)
2) EU	
3) Other destination markets	
Increase in sales Ind. 4 targets by \$2.1 million	Ind. 4 (Sales facilitated by HVAA)
Ex-Ind. 12 eliminated	Ex-Ind. 12 Percentage of Productivity Increase
Adjusted targets one year up [LOP=40%]	Ind. 12 OCA index
Ex-Ind. 15 eliminated	Ex-Ind. 15 Number of new members of member-based organizations
New indicator added	New-Ind. 14 Percent increase in revenues collected from membership fees and services provided by WUAs and national industry associations that are assisted by the Project
New indicator added	New-Ind.19 Number of students/pupils and faculty trained and/or receiving direct or indirect project assistance to improve knowledge
New indicator added	New-Ind.20 Number of private enterprises that collaborate with educational institutions

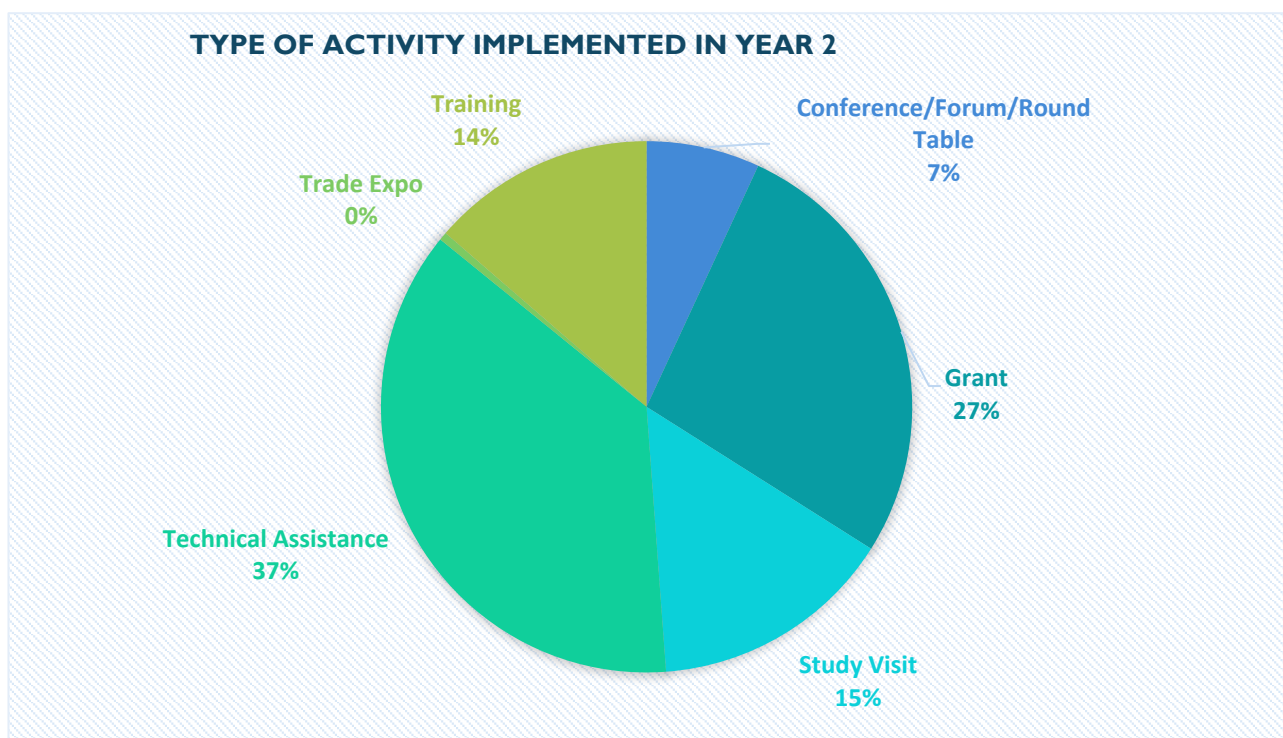
During Year 2 the project established its Project Monitoring and Evaluation System using Microsoft ACCESS Database System, which connects data sources with Power Business Intelligent to process and analyze data to produce reports, visualizations, and interactive dashboards. The range of Power Tools are now used by the project to examine and analyze data and perform a variety of analytical tasks: Power Query (data collection and filtration), Power Pivot (data modeling), Power View (generating presentation and interactive reports), and Power Map (3D geospatial visualization).

A Data Quality Assessment and indicator assessments were performed respecting required methodology and deadlines. Statistical analysis of the increases in sales at the national level in the project targeted value chains was performed for the Quarter 2, FY18 Report, in accordance with the Indicator Performance Indicator Reference Sheet (PIRS).

Closer to the end of FY18, intensive and extensive monitoring and evaluation activities were carried out to capture the new practices and technologies adopted by assisted enterprises, the investments triggered by these adoptions, and grantees' progress towards the main indicators and the sales. Progress of the assisted firms and farms is also being continuously captured all over the year and utilized by the project for success stories, bi-weekly, monthly, and quarterly reports.

The project and its partners performed a series of interviews to capture progress with respect to the above-mentioned indicators. Interviews across the five value chains had an average 80% response rate. The average farmers' adoption rate for the new technologies and practices across the value chains increased to 43% in FY18, compared to 36% in FY17. Some companies have adopted new practices both as a primary producer and as a processor or an exporter. A farmer could also adopt techniques and practices in two or more value chains that s/he works with. Though it is usually a result of HVAA activities and efforts motivating firms and farms to adopt new techniques and practices and invest, as a result, into an improved product quality and/or into an increased productivity, the investments generated were linked to one of the HVAA activities for a clearer picture and to avoid double counting. The picture that resulted is shown in the chart aside.

OCA surveys were performed by an independent organization, locally contracted, scores were assigned, and recommendations identified on a high/medium/lower priority basis.





## GRANT ACTIVITIES

Under the Agricultural Innovation and Technology Transfer Fund, 52 new agreements with organizations and producers from all regions of Moldova were signed by HVAA during the reporting period. HVAA has signed 55 Grant Agreements in total. The signed grants are shown below.

SIGNED GRANT AGREEMENTS			
Organization Name	Activiti Rayon	Activity Town/Village	Grant Topic
LLC Casa Albinei	Chisinau	Hulboaca	GRANT: Honey collection vessels for Beekeepers
LLC Regina Naturii	Ialoveni	Costesti	GRANT: Honey collection vessels for Beekeepers
LLC Vastdial&Co.	Anenii Noi	Bulboaca	GRANT: Honey collection vessels for Beekeepers
MFA	Chisinau	Chisinau	GRANT: Promotion of marketing activities
LLC Elvitis-Com	Straseni	Sireti	GRANT: Thermal treatment for table grape planting materials
MFA	Chisinau	Chisinau	GRANT: Creating new marketing opportunities
CI Ved-Mar-Agro	Ialoveni	Milestii Mici	GRANT: Table grape tray forming machine
CI Strugurele Auriu	Stefan Voda	Popeasca	GRANT: Improved packaging for export to Poland
MFA	Chisinau	Chisinau	GRANT: Fruit Logistica & Trial Shipment Activity
FF Chitoroaga Dumitru	Ungheni	Napadeni	GRANT: Packaging operation for value-added rose hip products
Horticulture Institute	Chisinau	Chisinau	GRANT: (Two grants) 1) Improvements to the existing greenhouse for virus-free seedling propagation; 2) Machinery for mother stock plantation
BoM	Chisinau	Chisinau	GRANT: National Berry Conference
FF Fedorciucova Zoia	Floresti	Cunicea	GRANT: Strawberry production demonstration plot (stone burying rotary cultivator)
AO DNT	Chisinau	Chisinau	GRANT: Youth training and engagement; Agro Challenge Moldova
NBARM, Ialoveni	Chisinau	Chisinau	GRANT: Vertical Hives, training and distribution
Belii Most Assoc	Causeni	Copanca	GRANT: Youth training and engagement; berry management
LLC AMV-Grape	Cahul	Vadul lui Isac	GRANT: Table Grapes Pergola Demonstration Activity
LLC Daion Service	Criuleni	Miclesti	GRANT: Table Grapes Pergola Demonstration Activity
LLC Fructmer	Ialoveni	Horesti	GRANT: Table Grapes Pergola Demonstration Activity
LLC Fruct-Agroprut	Leova	Tochile-Raducani	GRANT: Vegetables, Contract Farming

AO ProEntranse	Chisinau	Chisinau	GRANT: Youth training and engagement
LLC Poliglia	Telenesti	Negureni	GRANT: Vegetables, Contract Farming
LLC Agrotorginvest Grup	Transnistria	Tiraspol	GRANT: Vegetables, Contract Farming
LLC Terra-Vitis	Cahul	Burlacu	GRANT: Table Grapes Gable Demonstration Activity
SA Orhei-Vit	Chisinau	Chisinau	GRANT: Vegetables, Contract Farming
FF Bejenari Angela	Donduseni	Plop	GRANT: Showcasing US strawberry varieties
LLC Sermal-Com	Stefan Voda	Talmază	GRANT: Vegetables, Contract Farming
FF Bunduchi Sergiu Gheorghe	Causeni	Hagimus	GRANT: Vegetables, Contract Farming
LLC FIKS OOO	Transnistria	Tirnauca	GRANT: Vegetables, Contract Farming
CI AgrogrupProd Valeriu Papuc	Dubasari	Pirita	GRANT: Vegetables, Contract Farming
LLC Sandu Nelu	Stefan Voda	Rascaietii	GRANT: Vegetables, Contract Farming
LLC Frukt-Laine	Donduseni	Pocrovca	GRANT: Berry PHH
Il Colomicenco Dmitri Ivan	Causeni	Copanca	GRANT: Berry PHH
LLC Amonti Agro	Falesti	Navirnet	GRANT: Sweet Cherry PHH
Belii Most Assoc	Causeni	Copanca	GRANT: Berry Production Innovation
LLC Dried Fruit	Chisinau	Chisinau	GRANT: Develop and export value-added fruit products
MFA	Chisinau	Chisinau	GRANT: Innovative Partnership & Training Activities
LLC Regina Naturii	Ialoveni	Costesti	GRANT: Organic Honey Production
BoM	Chisinau	Chisinau	GRANT: Summer Berry Fairs 2018
FF Iliescu Natalia	Sîngerei	Copaceni	GRANT: Showcasing new raspberry varieties
NGA InfoConsulting	Chisinau	Chisinau	GRANT: Youth Engagement
MFA	Chisinau	Chisinau	GRANT: Strategic Market Penetration
Horticulture Institute	Chisinau	Chisinau	GRANT: Certified Table Grape Planting Material on Mother Stock Plantation
APA Centru Prim-Agro	Anenii Noi	Anenii Noi	GRANT: Eco-strawberry & Planting Material
LLC AgroLux-DIA	Chisinau	Humulesti	GRANT: Strawberry Demonstration Plot for Substrate Cultivation
Agro TV	Chisinau	Chisinau	GRANT: Mass-media Educational Programs

WUA Cosnita	Dubasari	Cosnita	GRANT: WUA Contract Farming
APSM Cahul	Cahul	Cahul	GRANT: Intensive Grape Production & PHH Technologies Training Initiative
Bubuieci Vocational School	Chisinau	Bubuieci	GRANT: Skills Laboratory
LLC Lolly Berry	Straseni	Dolna	GRANT: Logistic Hub for Berry Consolidators
Agriculture University	Chisinau	Chisinau	GRANT: Modernizing Curricula & School Inventory for Beekeeping Practices
Vocational School Nisporeni	Nisporeni	Nisporeni	GRANT: Modernizing Curricula & School Inventory for Berry Production Practices
LLC Apicola Lux CC	Chisinau	Chisinau	GRANT: Organic Honey Production
LLC Pro Media Cimisia	Cimisia	Cimisia	GRANT: Ag Education through Media Activities
WUA Acva-Grup	Anenii Noi	Puhaceni	GRANT: Increasing Water Usage at WUA Acva-Grup

PROGRESS TOWARD TARGETS UNDER THE PERFORMANCE MONITORING AND EVALUATION PLAN

N/o.	Indicator	Unit of measure	Disaggregation	Frequency	Baseline	Annual cumulative targets	Results	Comments
1	Return on investment	ratio	Location/ region, HS code	Annually	0	Yr 1: 0.2:1 Yr 2: 0.5:1 Yr 3: 1:1 Yr 4: 2:1 Yr 5: 4:1 LOP: 4:1	2.5:1 n/a - - - -	To be reported in Q2FY19
GNDR-2	Proportion of female participants in USG-assisted programs designed to increase access to productive resources (assets, credit, income, or employment)	%	Location/ region, HS code, age, type of resources	Quarterly	0	Yr 1: 25 Yr 2: 28 Yr 3: 32 Yr 4: 36 Yr 5: 40 LOP: 40	19.5 22 - - - -	
3*	Increased value of domestic and export sales in targeted sectors/value chains	Million USD	Location/ region, HS code, market	Annually	0	Yr 1: 15 Yr 2: 28 Yr 3: 48 Yr 4: 68 Yr 5: 84 LOP: 84	53 Q2FY19 - - - -	To be reported in Q2FY19
4*	Value of domestic and export sales facilitated on behalf of assisted enterprises	Million USD	Location/ region, sex, age, HS code, business size, type of organization, type of assistance, market	Data collected bi-annually, reported annually	0	Yr 1: 8 Yr 2: 20.1 Yr 3: 43.9 Yr 4: 63.9 Yr 5: 78.9 LOP: 78.9	1.5 28.9 - - - -	Targets reflected for Y3-Y5 have been increased from original targets due to project success and will be reflected in an amendment to the PMEP.
5	Number of enterprises with sales facilitated through US government assistance	Number	Location, sex, age, HS code, business size	Quarterly	0	Yr 1: 50 Yr 2: 100 Yr 3: 150 Yr 4: 200 Yr 5: 250 LOP: 250	50 220 - - - -	
6	Number of assisted enterprises exhibiting or participating at trade shows or participating in business-to-business events	Number	Location, sex, age, HS code, business size, type of organization	Quarterly	0	Yr 1: 20 Yr 2: 40 Yr 3: 80 Yr 4: 120 Yr 5: 150 LOP: 150	53 65 - - - -	
7	Number of enterprises receiving project-related assistance to improve knowledge, processes, technologies and practices	#	Location, sex, age, HS code, business size	Quarterly	0	Yr 1: 50 Yr 2: 130 Yr 3: 210 Yr 4: 300 Yr 5: 350	84 258 - - -	



N/o.	Indicator	Unit of measure	Disaggregation	Frequency	Baseline	Annual cumulative targets	Results	Comments
8	<b>Number of enterprises adopting improved production, processing, and management techniques or using improved agricultural inputs and equipment</b>	#	Location, sex, age, HS code, business size, type of improvement adopted	Annually	0	LOP: 350	-	Some organizations adopted practices both as primary producers and as processors and /or exporters
						Yr 1: 35	52	
						Yr 2: 105	144	
						Yr 3: 175	-	
						Yr 4: 245	-	
						Yr 5: 280	-	
LOP: 280	-							
9	<b>Number of assisted enterprises with achieved international certifications due to USG assistance</b>	#	Location, sex, age, HS code, business size, type of organization	Annually	0	Yr 1: 1	1	<ul style="list-style-type: none"> <li>1 companies received the GlobalGAP certificate in FY17</li> <li>3 companies received the certificates at the beginning of FY18</li> <li>9 new companies have successfully passed the GlobalGAP audit at the end of FY18</li> </ul>
						Yr 2: 4	13	
						Yr 3: 12	-	
						Yr 4: 20	-	
						Yr 5: 25	-	
						LOP: 25	-	
10	<b>Number of producers trained</b>	#	Location, sex, age, HS code	Quarterly	0	Yr 1: 1000	685	
						Yr 2: 2000	2031	
						Yr 3: 3000	-	
						Yr 4: 4000	-	
						Yr 5: 5000	-	
						LOP: 5000	-	
11	<b>Number of producers adopting improved production techniques or using improved agricultural inputs and equipment</b>	#	Location, sex, age, HS code, type of resource	Annually	0	Yr 1: 700	252	
						Yr 2: 1400	873	
						Yr 3: 2100	-	
						Yr 4: 2800	-	
						Yr 5: 3500	-	
						LOP: 3500	-	
12	<b>OCA index measure of the extent to which technical, administrative, and management capacity of WUAs and national industry associations has improved (average numerical score increase)</b>	%	Location, sex, age, HS code, business size, type of organization	Annually	Variable	Yr 1: 0% over the baseline	-	
						Yr 2: +10% over baseline	9.75% industry associations; 2.60% WUAs	
						Yr 3: +20% over baseline	-	
						Yr 4: +30% over baseline	-	
						Yr 5: +40% over baseline	-	
						LOP: +40% over baseline	-	
13	<b>Number of new types of services for members introduced by national industry associations, or WUAs</b>	#	Location, sex, age, HS code, business size, type of organization, type of service	Annually	0	Yr 1: 2	4	Year 1: (1) The Berries of Moldova Association started delivering Standards and Food Security Training to their members (continued in Year 2);
						Yr 2: 4	5	
						Yr 3: 6	-	
						Yr 4: 8	-	

N/o.	Indicator	Unit of measure	Disaggregation	Frequency	Baseline	Annual cumulative targets	Results	Comments
						Yr 5: 10 LOP: 10	- -	(2) The Berries of Moldova Association offered (through HVAA) Packaging to Association members (continued in Year 2); (3)The Berries of Moldova Association offered (through HVAA) a Platform to Exhibit – The Summer Berry Fair. Also, by being a BoM member – they could participate at the DeVin & DeGust Festival (continued in Year 2); (4) The two WUAs (Cosnita and Acva Grup) started providing Training Services to their members. <u>Year 2</u> ; (5) The Berries of Moldova Association started delivering Online Trainings to their members, using the equipment received from HVAA.
14	Percent increase in revenues collected from membership fees and services provided by WUAs and national industry associations that are assisted by the Project	%	Association assisted Type of association (WUA or national industry association)	Annually	0	Yr 1: n/a Yr 2: 5 Yr 3: 10 Yr 4: 15 Yr 5: 20 LOP: 20	n/a Q2FY19	New indicator (included in the amended PME) To be reported in Q2FY19  In accordance with the Indicator PIRS, Data will be reported annually for the calendar year, i.e. included in the Report for the Second Quarter of the following year.
15	Number of policies, laws, and regulations drafted and submitted for endorsement	#	Location, HS code, type of intervention	Annually	0	Yr 1: 2 Yr 2: 6 Yr 3: 11 Yr 4: 16 Yr 5: 20 LOP: 20	2 6 - - -	(1)Position Paper on Apiculture submitted to Parliament; (2) Position Paper on Dual Education System submitted to the Ministry of Education, Science and Culture; (3) Position Paper on Draft Regulation on Design & Planting of Orchards and Berry Plantations; (4) Position Paper on Adoption of Modern Technologies as Pergola System & Providing State Subsidies; (5) Position Paper on Draft of National Program of Apiculture Sector Development for 2018-2025; (6) Draft Regulation on Quality Requirements for Honey Bi-products
16	Value of new private sector investment in assisted enterprises and financing mobilized with US government assistance	Million USD	Location, sex, age, HS code, business size, type of organization, type of investment/financing	Annually	0	Yr 1: 2 Yr 2: 6 Yr 3: 10 Yr 4: 13 Yr 5: 15 LOP: 15	1.07 12.1 - - -	
17	Number of partnerships facilitated	#	Location, HS code	Annually	0	Yr 1: 2 Yr 2: 5 Yr 3: 9 Yr 4: 12 Yr 5: 15 LOP: 15	2 14 - - -	Described in the table under Sub-objective 4.2.
18	Value of partnerships facilitated or supported	Million USD	Location, HS code	Annually	0	Yr 1: 0.5 Yr 2: 1.75 Yr 3: 3.25	0.21 1.52 -	

N/o.	Indicator	Unit of measure	Disaggregation	Frequency	Baseline	Annual cumulative targets	Results	Comments
						Yr 4: 4.75	-	
						Yr 5: 5.7	-	
						LOP: 5.7	-	
19	<b>Number of students/pupils and faculty trained and/or receiving direct or indirect project assistance to improve knowledge</b>	#	Target sector (HS code), location, age; gender (M/F)	Quarterly	0	Yr 1: N/A	n/a	New indicator (included in the amended PMEP)
						Yr 2: 150	143	
						Yr 3: 300	-	
						Yr 4: 450	-	
						Yr 5: 600	-	
						LOP: 600	-	
20	<b>Number of private enterprises that collaborate with educational institutions</b>	#	Target sector (HS code), type of enterprise	Annually	0	Yr 1: n/a	n/a	New indicator (included in the amended PMEP)
						Yr 2: 10	10	
						Yr 3: 20	-	
						Yr 4: 30	-	
						Yr 5: 40	-	
						LOP: 40	-	Lolly Berry LLC, MoBerry COOP, Bivol Andrei FF, Pomrbus LLC, Irigata Crop Service, Nova-Geea LLC, Agrodor Succes LLC, Codru-ST LLC, George Monic LLC, Revic-Grup LLC.

## **SECTION II. DELIVERABLES**

<b>FIRST QUARTERLY REPORT YEAR 2</b>
<b>SECOND QUARTERLY REPORT YEAR 2</b>
<b>THIRD QUARTERLY REPORT YEAR 2</b>
<b>OCTOBER MONTHLY REPORT</b>
<b>NOVEMBER MONTHLY REPORT</b>
<b>JANUARY MONTHLY REPORT</b>
<b>FEBRUARY MONTHLY REPORT</b>
<b>APRIL MONTHLY REPORT</b>
<b>MAY MONTHLY REPORT</b>
<b>JULY MONTHLY REPORT</b>
<b>AUGUST MONTHLY REPORT</b>
<b>WORK PLAN YEAR 2</b>

## **SECTION III. SCHEDULES**

HVAA is implementing activities according to the approved working plan. There are no significant potential or actual slippages to report.

## **SECTION IV. IMPLEMENTATION CHALLENGES**

Despite concerted efforts, the project struggled to involve as many women participants as indicated in the project's PMP. Part of this is due to a lack of women in leadership roles within agri-businesses. While many women indirectly benefitted from project assistance, it is not feasible to capture and attribute results to HVAA interventions within project resource allotments. The project plans to implement Women's Activity Network initiatives during Year 3 to stimulate greater participation from women in the agricultural sector. In addition, the project's grant fund will continue to evaluate activities and award points for gender integration. During FY2018, HVAA delivered several women-focused domestic study visits to female-owned or administrated business, a practice that the project will scale in FY2019.

Although the 2018 growing season was excellent in Europe, inclement weather in Moldova – heavy rains before harvest – caused approximately 60% of table grapes to be damaged. At the same time, there was a world-wide surge in apple production, which caused Moldovan businesses to lose many sales opportunities in traditional and target markets, as the demand dropped, and prices plummeted. These



two factors in key project sectors will negatively impact sales reported in FY19. HVAA will award grant activities in Y3 that will serve as demonstrations to help mitigate weather-related damage.

The OCA survey showed a capacity level lower than expected in the industry associations, this requiring extended efforts and an individual approach to each of them. HVAA already implemented a series of interventions to mitigate this situation and has a straightforward strategy to build national associations as viable and sustainable structures for the benefit of their members and the value chain businesses as a whole.

## SECTION V. MAJOR ACTIVITIES PLANNED FOR NEXT QUARTER (Y3 Q1)

Activities/Table Grape Value Chain	Y3 Q1		
	Oct	Nov	Dec
<b>Objective 1. Expand and strengthen linkages to domestic, regional and international markets</b>			
<b>Activity 1.1. Develop Sector Export Marketing Plan</b>			
Update the Sector Export Marketing Plan developed during Y2 based on the experience of 2018/19 marketing season			
<b>Activity 1.2. Develop individual marketing plans for key exporting entities</b>			
Jointly with the national and regional associations, continue to identify entities that are already involved or planning to enter into export operations			
Carry out export-readiness audits and develop marketing plans for up to 10 entities (based on the methodology tested with MFA in Year 2)			
<b>Activity 1.3. Facilitate increased sales</b>			
Involve table grape exporters in the Romania promotional campaign implemented with Moldova Fruit Association			
Continue to provide technical assistance to export group targeting the Spanish market (Dec-Feb supply window)			
Provide post-event technical and marketing assistance to participants in Poland B2B event (Sept 2018)			
Provide marketing grants to support expansion of exports to the markets prioritized through the SEMP			
Explore and support synergies with IFC-CBI and MIEPO market development activities for the table grape value chain			
<b>Objective 2. Improve productivity, post-harvest handling and private sector capacity to comply with EU and international standards</b>			
<b>Sub-objective 2.1 Improve adoption of innovative technologies and agricultural practices</b>			
<b>Activity 2.1. Introduce innovative grape production technologies and best agriculture practices</b>			
Provide grant support (2) to expand the network of intensive grape production demonstration plots (Pergola & Gable)			
Provide grant support (2) to establish IPM & SLM demo plots that will facilitate compliance with pesticide residue requirements of EU retailers			
Provide international production consultancy support to HVAA and its partners (Vito Manisi)			
<b>Activity 2.2. Introduce new post-harvest technologies and practices</b>			
Provide grant support (1) to establish a regional marketing service provider with packinghouses in Gagauzia and Taraclia			
<b>Activity 2.3. Establish capacity to produce domestic, certified virus-free planting material</b>			
Provide ongoing support to the Certified Grape Planting Material Partnership established in Year 2, including development of a business plan for HRI			
Develop a brochure to promote certified, virus-free grape planting material			
Explore opportunities to establish a partnership between HRI and Cornell University on topics of joint interest such as vine certification, new seedless varieties, and sustainable grape production			
<b>Activity 2.4. Improve productivity through dissemination of innovative practices and technologies</b>			
Provide grant support (3) to knowledge and technology transfer activities in the grape value chain			

Develop technology briefs (including economic analysis) and use them as the basis for media programming			
<b>Sub-objective 2.2 Improve private sector compliance with international/EU food/quality standards</b>			
Activity 2.5. Provide support to the private sector to reach international quality and food safety certification			
Support GLOBALGAP, ISO22000, and IFS Food implementation and certification (including with grant beneficiaries)			
<b>Objective 3. Strengthen capacities of member-based groups to serve their members in targeted value chains</b>			
Activity 3.1. Strengthen APESM and other member-based organizations			
Provide targeted, demand-based assistance to APESM and regional associations			
Support the organization of regional association annual meetings to discuss markets, technologies, and organization services			
<b>Objective 4. Improve the enabling environment leading to increased investments and an improved workforce</b>			
<b>Sub-objective 4.1 Increase private sector linkages with the education/research sector, leading to a competitive workforce</b>			
Activity 4.1. Strengthen capacity of local crop advisors			
Form a group of five people to become intensive grape production advisors			
Design and implement a training program for the intensive grape production advisory group, including training in Italy			
Activity 4.2. Link private sector and educational institutions			
Organize roundtable discussions for private sector to explain workforce needs to relevant educational institutions			
<b>Sub-objective 4.2 Improve the policy and enabling environment for selected value chains</b>			
Activity 4.3. Improve quality standards for table grape planting material			
Update status and content of amendments on quality requirements for table grape planting material initiated by MARDE			
Advocate for introduction of Pergola system into existing norms on design and plantation of vineyards, approved by MARDE Decision 196/2015			

Activities/Apples&Stone Fruit Value Chain	Y3 Q1		
	Oct	Nov	Dec
<b>Objective 1. Expand and strengthen linkages to domestic, regional and international markets</b>			
Activity 1.1. Develop SEMP			
Support MFA to organize the 4th Annual Fruit Business Conference			
Activity 1.2. Develop individual marketing plans for key exporting entities			
Jointly with MFA and other member-based organizations, continue to identify entities that are already involved - or are planning to enter export operations			
Carry out export-readiness audits and develop marketing plans for up to 10 entities (based on the methodology tested with MFA in Year 2)			
Activity 1.3. Facilitate increased sales			
Continue implementation of marketing grant (SIM_18014) with MFA			
Middle East / Guide to Shipping Fresh Produce in Sea Containers			
Middle East / World of Perishables Fair & Pilot shipments			
Promotion of Moldovan fruits and grapes in Romania			
Establish linkages with EU importers and retailers, including through inward and outward trade missions, and through Fruit Logistica participation			
Provide marketing grants to industry associations and exporters (including marketing cooperatives) to support market development activities in the priority markets identified in the Fruit SEMP			
Organize inward buyer missions for fruit importers from the market prioritized by SEMP			
Explore and support synergies with IFC-CBI and MIA (formerly MIEPO) market development activities for the fruit value chain			
<b>Objective 2. Improve productivity, post-harvest handling and private sector capacity to comply with EU and international standards</b>			
<b>Sub-objective 2.1 Improve adoption of innovative technologies and agricultural practices</b>			
Activity 2.1. Introduce innovative fruit production technologies and agricultural practices			
Provide grant support to set-up a sweet cherry rain protection demonstration plot			
Provide grant support (2) to establish IPM & SLM demo plots that will facilitate compliance with pesticide residue requirements of EU retailers			
Activity 2.2. Introduce new post-harvest technologies and practices			
Provide grant support to improve fruit cosmetic appeal for Middle Eastern and Indian markets (apple waxing equipment)			
Provide grant support (2) to establish integrated sweet cherry consolidation centers (hydro cooling, sorting and packing lines, use of MAP)			
Activity 2.3. Establish capacity to produce domestic, certified virus-free planting material			
Develop a partnership between the Horticulture Research Institute (HRI), fruit nurseries, and relevant public authorities' institutions to produce certified fruit planting material			
Broker a partnership between HRI and Cornell University for the propagation and marketing of Geneva series apple rootstocks (varieties tolerant to replant diseases)			
Activity 2.4. Improve productivity through dissemination of innovative practices and technologies			
Organize training events for growers and exporters as part of the ongoing technology transfer grant with MFA			
Provide grant support to knowledge and technology transfer in the fruit value chain, including local training events, international study tours, and young growers schools			



Update the Apple Production Manual				
<b>Sub-objective 2.2 Improve private sector compliance with international/EU food/quality standards</b>				
Activity 2.5. Provide support to the private sector to reach international quality and food safety certification				
Develop a smartphone application for easier retrieval of information pertaining to approved pesticides, re-entry periods, and MRLs for key markets (MD, EU, RU)				
Develop a fruit traceability solution (software and hardware) to support GLOBALGAP implementation				
Provide consulting & training support to implement ISO 22000, GLOBALGAP, and social standards at fruit growers and exporters				
Activity 2.6. Build the capacity of ANSA to support market diversification and private sector compliance with international standards				
Support ANSA in the proper monitoring and documentation of official controls for first fresh fruit deliveries to India (as required by Indian control protocols)				
Support ANSA to upgrade its official controls for dimethoate to achieve approval of Moldovan cherry exports to France				
<b>Objective 3. Strengthen capacities of member-based groups to serve their members in targeted value chains</b>				
Activity 3.1. Strengthen MFA				
Support MFA to develop its Strategy and Action Plan				
Support MFA to develop and implement its Advocacy Agenda				
Improve internal policies and regulations, as per OCA findings and recommendations				
<b>Objective 4. Improve the enabling environment leading to increased investments and an improved workforce</b>				
<b>Sub-objective 4.1 Increase private sector linkages with the education/research sector, leading to a competitive workforce</b>				
Activity 4.1. Link private sector and education institutions				
Other workforce development activities are not value-chain specific and are described under "Cross-cutting activities."				
<b>Sub-objective 4.2 Improve the policy and enabling environment</b>				
Activity 4.2. Develop the Horticulture Development Plan				
Support MARDE to develop the Horticulture Development Plan				

Activities/Berry Value Chain	Y3 Q1		
	Oct	Nov	Dec
<b>Objective 1. Expand and strengthen linkages to domestic, regional and international markets for targeted value chains</b>			
Activity 1.1. Map berry production across the country			
Map berry production throughout Moldova (strawberries, raspberries, and blackberries)			
Activity 1.2. Develop individual marketing plans for key exporting entities			
Activity 1.3. Facilitate increased domestic and international sales			
Provide marketing grants to support increased domestic and international sales			
<b>Objective 2. Improve productivity, post-harvest handling and private sector capacity to comply with EU and international standards</b>			
<b>Sub-objective 2.1 Improve adoption of innovative technologies and agricultural practices</b>			
Activity 2.1. Introduce new production, PHH technologies, and management practices			
Winter training school for berry producers (3 days, 3 berries) conducted by International STTA			
Activity 2.2. Facilitate adoption of innovative berry production technologies and agricultural practices			
Continue implementation of six Year 2 'Berry Innovation Program' grants, including demonstration sites for new varieties, innovative production technologies, and post-harvest handling practices			
Provide new 'Grants for Berry Innovation' program for producers/enterprises to establish demonstration sites for new varieties, innovative production technologies and post-harvest handling practices			
Develop, publish, and distribute one-page bulletins on five berry innovations (including budgets), based on economic findings from Year 2 demonstration plots			
Activity 2.3. Facilitate adoption of new Post-Harvest Handling (PHH) technologies and management practices			
Continue implementation of three Year 2 grants to upgrade storage and PHH technologies for berry consolidators, including packaging and pre-cooling services			
Provide grants to upgrade storage and PHH technologies for berry consolidators, including packaging and pre-cooling services			
<b>Objective 3. Increase capacities of member-based groups to serve their members in targeted value chains</b>			
Activity 3.1. Strengthen Berries of Moldova Association (BoM)			
Support BoM to finalize its Strategy and Action Plan and ensure its dissemination			
Develop internal policies and regulations, as per OCA findings and recommendations			
Support BoM to develop and implement its Advocacy Agenda			
Jointly with BoM, and HEKS, other donor organizations organize Annual Berry Sector Conference			
Assist BoM to become accredited with MARDE to provide subsidy-related trainings, i.e. application documentation, curricula for trainings, trainers identification			
Improve BoM communication and promotion capacity, including development of print materials and web-site content			
<b>Objective 4. Improve the enabling environment leading to increased investments and an improved workforce</b>			
<b>Sub-objective 4.1 Increase private sector linkages with the education/research sector, leading to a competitive workforce</b>			
Activity 4.1. Strengthen capacity of local berry advisors			

Implement a berry ToT program for Moldovan consultants in Bosnia & Herzegovina (anticipated 2 visits, 5 days each)			
<b>Sub-objective 4.2 Improve the policy and enabling environment for selected value chains</b>			
Activity 4.2. Improve the policy and enabling environment for the berry value chain			
Develop market rules for berries and advocate for anti-smuggling measures			

Activities/Open Field Vegetables Value Chain	Y3 Q1		
	Oct	Nov	Dec
<b>Objective 1. Expand and strengthen linkages to domestic, regional, and international markets for targeted value chains</b>			
Activity 1.1. Facilitate linkages between producers and buyers			
Update the Year 2 survey of fresh produce requirements of leading retailers and raw material requirements of leading processors			
Conduct a campaign through TV and other media to promote contract growing of open field vegetables (based on Year 2 grantees)			
Organize the 2nd edition of the Domestic Trade Forum to link producers with processors, retailers, and distributors			
Activity 1.2. Facilitate export sales			
Provide marketing grants to support export market development activities			
<b>Objective 2. Improve productivity, post-harvest handling and private sector capacity to comply with EU and international standards in targeted value chains</b>			
<b>Sub-objective 2.1 Improve adoption of innovative technologies and agricultural practices in targeted value chains</b>			
Activity 2.1. Implement partnerships and demonstration plots for the production of open field vegetables (including CIS zones)			
Provide grant support to processors (3-4) to establish sustainable systems of raw material acquisition based on a grower-processor win-win approach			
Develop technology briefs, including economic analysis, and use them as the basis for media programming			

Activities/Honey Value Chain	Y3 QI		
	Oct	Nov	Dec
<b>Objective 1. Expand and strengthen linkages to domestic, regional and international markets for targeted value chains</b>			
Activity 1.1. Develop Sector Export Marketing Plan			
Update the Sector Export Marketing Plan developed during Year 2 based on the experience of 2018/19 marketing season			
Activity 1.2. Facilitate increased sales			
Continue implementation of group organic honey certification, led by consolidators-exporters			
Provide marketing and PHH grants (3) to expand exports to the markets prioritized through SEMP, with a focus on organic honey			
Explore and support synergies with IFC-CBI and MIA market development activities for the honey value chain			
<b>Objective 2. Improve productivity, post-harvest handling and private sector capacity to comply with EU and international standards in targeted value chains</b>			
<b>Sub-objective 2.1 Improve adoption of innovative technologies and agricultural practices</b>			
Activity 2.1. Increase adoption of new production and management practices			
Conduct a workshop with NBARM and vertical hive beneficiaries to review the specifications for the standard beekeeping vertical hive			
Conduct ToT on improved beekeeping management (vertical hives, IPM, illegal residues, organic honey, etc.)			
Implement a follow-on Vertical Hive Demonstration and Training Activity with NBARM (20 hive beneficiaries, 400 trainees), with deeper integration of exporters and addition of the "Financial Analysis & Management" training module			
Translate to Romanian and disseminate the "Varroa Management Guide" developed by US-Canada Honey Bee Health Coalition			
Support implementation of the partnership between NBARM and AgroTV to develop educational materials			
Provide grant support to initiatives that facilitate collaboration and communication between field crop farmers and beekeepers			
<b>Objective 3. Strengthen capacities of member-based groups to serve their members in targeted value chains</b>			
Activity 3.1. Strengthen the NBARM			
Support NBARM to develop its Strategy and Action Plan and ensure its dissemination			
Improve internal policies and regulations, as per OCA findings and recommendations			
Support NBARM to formulate and implement its Communication Plan (including print materials and website)			
Support NBARM to formulate and implement its Advocacy Agenda			
Assist the NBARM to become accredited with MARDE on providing subsidy related trainings, i.e. application documentation, curricula for trainings, trainers identification			
Help honey consolidators-exporters to create their association and potentially become a member of NBARM			
<b>Objective 4. Improve the enabling environment leading to increased investments and an improved workforce</b>			
<b>Sub-objective 4.1 Increase private sector linkages with the education/research sector, leading to a competitive workforce</b>			
Activity 4.1. Establish new educational, research, or agribusiness partnerships, leading to a more competitive workforce			



Provide follow-on assistance to Bubuieci partnership with NBARM and other entities in the honey value chain			
Activity 4.2. Link private sector and education institutions			
<b>Sub-objective 4.2 Improve the policy and enabling environment for selected value chains</b>			
Activity 4.3. Improve the policy and enabling environment for the honey value chain			
Provide support to NBARM to advocate for regulatory changes to reduce the harm caused to bees by pesticide use			

Cross-Cutting Activities	Y3 Q1		
	Oct	Nov	Dec
<b>Objective 1. Expand and strengthen linkages to domestic, regional, and international markets for targeted value chains</b>			
Activity 1.1. Provide website design coaching to exporters to professionalize their image to international buyers			
Hold "Website Content 101" seminars with targeted firms on how to develop basic content that is appealing to buyers			
Review content, support translation in English			
<b>Objective 2. Improve productivity, post-harvest handling, and private sector capacity to comply with EU and international standards</b>			
<b>Sub-objective 2.1 Improve adoption of innovative technologies and agricultural practices</b>			
Activity 2.1. Develop productivity and profitability briefs for new technologies promoted by the project			
Prioritize and develop technology briefs (based on Year 2 demonstrations and trials) and use them as the basis for programming on AgroTV and other media/publication outlets			
<b>Sub-objective 2.2 Improve private sector compliance with international/EU food/quality standards</b>			
Activity 2.2. Provide support to the private sector to reach desired certification			
Support GOLBALGAP certifying bodies to provide services in Moldova			
<b>Objective 3. Increase capacities of member-based groups to serve their members in targeted value chains</b>			
Activity 3.1. Build capacity of member-based associations			
Conduct a workshop on association development from a thriving association in a similar country (relevant for all leading associations)			
Activity 3.2. Support associations on communications tools			
Provide media training for chairmen and spokespeople of associations			
Activity 3.3. Strengthen WUAs			
Continue the implementation of grants for WUAs and their members which were approved/awarded in Year 2			
Support Annual WUA Conference			
Conduct OCAs for five WUAs (two selected in Year 2 and three selected in Year 3)			
Building on Year 2 selection process, conduct surveys in three new CIS areas to determine impediments to the use of CIS systems and provide solutions to increase water sales			
Activity 3.4. Support WUAs to develop and deliver new services			

Based on the findings of the surveys, help WUA managers to develop relevant business models, including access to funding			
Provide grants to WUAs and/or CIS area farmers to expand irrigated crops, increase water sales, and/or promote efficient irrigation services			
Based on feedback from WUAs, organize workshops on subjects such as access to finance, land renting, and consolidation			
Provide training and Technical Assistance to farmers in CIS Areas to promote the use of water for irrigated crops			
<b>Objective 4. Improve the enabling environment leading to increased investments and an improved workforce in key value chains</b>			
<b>Sub-objective 4.1 Increase private sector linkages with the education/research sector, leading to a competitive workforce in targeted value chains</b>			
Activity 4.1. Strategize HVAA interventions with three selected educational institutions			
Establish Three-Year roadmap for HVAA support for Bubuieci (honey), Nisporeni (berry), and Agrarian State University (irrigation) to finetune possible project interventions, including potential areas for grant support			
Activity 4.2. Stimulate links between the private sector and agriculture education institutions in HVA value chains			
Support educational institutions to develop "internship" (learn by doing) programs for the honey, berry, and irrigation sectors with private sector operations			
Support training for private-sector intern host firms to ensure quality internships and student safety, including the development of training materials/resources for hosts			
Pilot a 'Curricula Quality Council' for the beekeeping program at Bubuieci Vocational School to integrate private sector demands into course content			
Organize multiple events (e.g.: discussion clubs, workshops, guest lectures) in agriculture educational institutions with private sector			
Activity 4.3. Build capacity of agriculture education institutions to prepare a competitive workforce			
Continue the implementation of grants awarded in Year 2 for skills laboratory and training facility upgrades (Bubuieci, Nisporeni, Agrarian University)			
Based on individual Three-Year roadmaps, provide grants for 'Innovative Agricultural Education Activities'			
Laboratory and training facility upgrades at agriculture educational institutions for honey, berry, and irrigation based on priorities identified in Three-Year roadmaps			
Organize multiple workshops for the teachers/faculty in using the advanced technologies, as well as comprehensive safety ToT measures			
If identified in the Three-Year roadmaps, support teachers/faculty from educational institutions to implement innovative teaching methodologies, possibly through collaboration with other international institutions or educators (from EU or US)			
Develop, validate, and obtain approval of new curricula for berry, honey, and irrigation			
Develop and publish practical guides (e.g.: use of weather stations, best practices for vertical bee hives, substrate cultivation, etc.) for students			
Develop short-term commercial courses for farmers to address training needs of the private sector (irrigation principles, beekeeping, etc.)			
Promote educational offerings to attract more students to the selected educational institutions			
Provide extra-curricular activities/courses for students to develop business models, apply for subsidy start-up funding, apply for access to credit, and market themselves for job interviews			
Connect educational institutions with private sector/financial institutions/donor organizations/government institutions to help support student start-up initiatives in HVA following graduation			

Activity 4.4. Support initiatives for youth and student engagement in HVA value chains			
Continue the implementation of youth engagement grants initiated in Year 2 (DNT Association, Proentrance NGO, Belii Most, NGA Infoconsulting)			
Provide grants to support initiatives for youth/student engagement in HVA value chains for non-educational organizations			
Support student tours to HVAA demonstration plots or other grantee sites			
<b>Sub-objective 4.3 Improve the policy and enabling environment for selected value chains</b>			
Activity 4.6. Support sector associations to engage in advocacy on behalf of members on relevant cross-cutting policy issues			
Assist industry associations and other private sector stakeholders to identify, prioritize, and advocate for relevant cross-cutting policies issues			
Support the public authorities to draft legislation to meet the requirements of the private sector			
Activity 4.7. Support advocacy activities through media visibility			
Develop and implement a plan to promote and support public consultation of the Horticulture Development Program			
Use Public Relations subcontract and/or other tools to promote policy or regulatory changes supported by project			
Note: Timing for the media activities to support advocacy are dependent on the evolution of the advocacy process			
Activity 4.8. Advocate for revision of Law on Seasonal Workers in Agriculture			
Awareness campaign to promote need for revision of Law on Seasonal Workers in Agriculture			
Assist sector associations and other private stakeholders to advocate for revision of Law on Seasonal Workers in Agriculture			
Develop and publish the Guide on Seasonal Workforce Management			
Draft amendments to Law on Seasonal Workers in Agriculture			
<b>CROSS-OBJECTIVE ACTIVITIES</b>			
Activity C.1. Develop news stories and perform media relations to ensure visibility of project activities and beneficiaries' success			
Provide continuous oversight to communications subcontractor			
Continue collaboration with agrobiznes.md on HVAA portal			
Activity C.2. Provide grant to develop educational programming for farmers			
Through ongoing (and potentially new) grant initiative(s), continue to develop programs to educate farmers in targeted value chains on new technologies, crop-management techniques, etc.			
Activity C.3. Support Women in Agriculture Network in the HVAA VCs			
Support Women in Agriculture Network in the HVAA Value Chains			
Activity C.4. Environmental compliance			
Conduct environmental screening/reviews/assessment of activities funded through HVAA, namely AITTF			
Ensure compliance to IEE and PERSUAP in all SOWs, solicitations, and agreements, as well as during activity implementation			
Promote eco-friendly ag practices through project's media initiatives			
Ensure GAP, IPM, and safe pesticide use practices (including protection of bees) are incorporated in ToTs and training activities			
Activity C.5. Monitoring and Evaluation			
Conduct Quarterly MEL Exercises (HVAA staff)			