# **Armenian Technology Group, Inc.**

California Based 501(c)3 Non-Profit Corporation

ATG Foundation - Armenia ATG - Artsakh



2009 Activity Report

December 31, 2009

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# ATG / ATGF Annual Report 2009

Promoting Conservation Agriculture No-Till Systems Technology



Agriculturally Superior Economically Profitable Environmentally Responsible

#### Project Summary and Objective

To empower small and mid-size private farmers in Armenia with sustainable conservation agricultural methodology by educating and training both the farmers, the authorities and the public through the media to promote and apply more efficient farm management practices to help increase productivity, reduce production cost by up to 65% and increase profit margin. To avoid the danger and the negative impact that monoculture may cause, the project emphasizes environmental concerns, and emphasizes crop rotation practices.

By Varoujan Der Simonian, Executive Director, ATG ATG Headquarters, Fresno, California Gagik Mkrchyan, Director, ATG Foundation Armavir, Armenia Vladimir Zakiyan, Director, ATG NK Stepanakerd, Artsakh

### Armenian Technology Group, Inc. (ATG) ATG Foundation (ATGF-Armenia) 2009 Activity Report

#### 1. Meeting organizations objectives and achieving our goals.

We are pleased to report that during the current 2008-2009 growing season ATG/ATGF was able to carry out several activities that did meet our objectives. These objectives prepared the groundwork for meeting our long-term goal of empowering small and mid-size private farm/ businesses in creating sustainable conservation agriculture through the no-till systems technology and crop rotation methodology.

The ultimate objective is to help the farm families in rural Armenia apply more efficient farm management and cultivation practices to help reduce their production costs, increase their income and, in due course, reduce their poverty level.

ATG met these objectives by carrying out on-going educational seminars, field demonstrations and on site training activities, as well as by disseminating information on efficient farming practices, in various parts of the Armenia countryside, to more then 5000 grain (wheat, barley, alfalfa, corn, vegetable, etc.) growing farmers with whom ATG has been working for over 20 years.

In these regards, during this reporting cycle, ATG accomplished the following:

- 1- Established and planted 79 *hectares (197 acres)* of no-till conservation agriculture demonstration trial plots on eighteen (18) different geographical locations, in three (3) different regions of Armenia.
- 2- Organized and conducted <u>36 educational</u> and training seminars focused on no-till systems technology throughout the country, in order to disseminate information and explain the methodology of conservation agriculture, as carried out through the no-till systems farm practices and necessary crop rotation, while also emphasizing their economic return and benefits to the farmers.
- 3- Invited grain-growing farmers, and local media (TV and print) to the farm trial sites to disseminate information and to educate the general public of the benefits of no-till conservation agriculture.
- 4- Invited the Minister of Agriculture and the Minister of Economy, as well as their staffs, to showcase the new planting methodology that is agriculturally superior, environmentally sound and economically profitable for the country.
- 5- Provided scientifically and practically proven data to various ministers of the government of Armenia, to encourage them to incorporate no-till conservation agriculture methodology as part of a long term government policy. At this writing, the Prime Minister and the Minister of Economy are soliciting input and support from all the ministries in order to adopt the project as part of the Government of Armenia's national economic development strategy.
- 6- Increased the participation of private farmers in adapting no-till conservation agriculture. (*Note: It is a known fact that farming sectors are among the most conservative segments of our society, the members of which are cautious about adopting new practices. Armenian farmers are no different*)

Enclosed is the list of the demonstration sites of 115 acres of farms planted with no-till systems technology during Fall 2008 and Spring 2009 planting seasons. (Plantings with traditional cultivation are not listed.)

	Marz,	Village	Foundation and Registered Seed planting in 2008-09				
N N			Fall	Spring	Culture	Total Acres	
			2008	2009		planted in Fall	
						'08 & Spring '09	
1	Armavir	Aratashen	4		Wheat	10	
2	Armavir	Talvorik	10		Alfalfa	25	
3	Shirak	Arapi		3	Wheat	7.5	
				No till systems planting for other farmers			
1	Shirak	Karnout	1.3		Wheat	3.25	
			.4		Alfalfa	1	
2	Shirak	Arevik	2.3		Wheat	5.75	
3	Lori	Spitak	2.5		Wheat	6.25	
4	Shirak	Arapi		1	Wheat	2.5	
5	Shirak	Lanjik		6	Alfalfa	15	
6	Shirak	Panik		15	Wheat	37.5	
7	Shirak	Nor Kyank		1	Wheat	2.5	
	Total hectares / acres		25.5	26	in Acres =	116.25	

### Photos 1 and 2



No-till equipment in demonstration fields in Lori (L) and Armavir (R) regions

70 Acres were planted utilizing No-Till Systems Technology and Crop Rotation Culture in Fall 2009

	Seed Multiplication Program	Village	<b>Crop Rotation Culture</b>		Acres Planted	
	Planted by Farmers and ATG		Last Year	This Year	in Fall 2009	
1	ATGF Fields Planted with	Karnout	Corn	Wheat	10.0	
	Foundation Seeds for seed			Barley	2.5	
	Germination Private	Arapi	Green	Garbanzo	0.5	
		Arapi	Alfalfa	Wheat	7.5	
		Talvorik	Wheat Vegetable	Wheat Wheat	8.75 3.75	
	<b>Planted by Private Farmers -</b> <b>Seed Association members with</b> <i>Registered</i> <b>and</b> <i>Certified Seeds</i>					
2	Garibyan Ashot	Kharberd	Vegetable	Wheat	9.5	
3	Gaboyan Hovanes	Karnout	Corn Potato	Wheat Wheat	4.25 11.25	
4	Ayvazyan Albert	Arapi	Green	Wheat	2.5	
5	Poleyan Avo	Arapi	Wheat	Wheat	5.0	
6	Agroholding	Spitak	Wheat	Wheat	4.5	
	TOTAL				70.0	

### Photo 3



No-till drill on a dry-land and rocky soil planting demonstration site in Talvorik

#### 2. The benefits of ATG activities on our constituents.

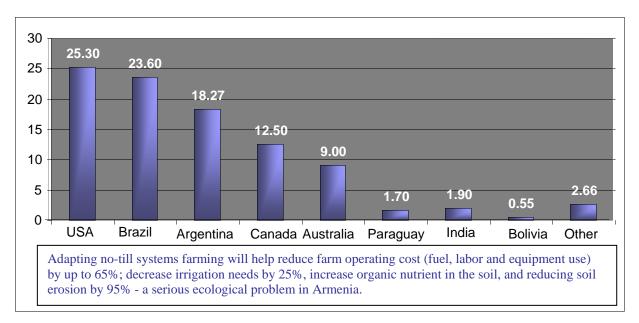
The Conservation Agriculture through the no-till systems technology and crop rotation methodology provide the following long term, and system-wide economic and environmental benefits to the people of Armenia:

- 1. Increase farm productivity, increase farm income and reduce rural poverty, which will improve the country's trade balance, while, at the same time, establishing sustainable agri-businesses that will feed the people; and
- 2. Address Armenia's ecological and environmental conditions, by improving organic matters in the soil, reducing erosion, and gradually converting unproductive lands to fertile farmlands.

#### Conservation Agriculture (CA) and its Benefits

"Conservation agriculture (CA) aims to achieve sustainable and profitable agriculture and subsequently aims at improving livelihoods of farmers through the application of the three CA principles: minimal soil disturbance, permanent soil cover and crop rotations. CA holds tremendous potential for all sizes of farms and agri-ecological systems, but its adoption is perhaps most urgently required by small-hold farmers, especially those facing acute labor shortages. It is a way of combining profitable agricultural production with environmental concerns and sustainability, and it has been proven to work in a variety of agriecological zones and farming systems. It has been perceived by practitioners as a valid tool for Sustainable Land Management (SLM). It is because of this promise that FAO is actively involved in promoting CA, especially in developing and emerging economies." *Source: UN/FAO - Food and Agriculture Organization*.

The no-till systems farming practices are spreading throughout the world because of their economic benefits and agricultural superiority over the traditional farming methods. The table below displays the number of hectares being planted under a no-till system which has more done doubled in the past nine years, increasing from 45.5 million in 1999 to 62.1 million in 2001, and to 95,480 million hectares in 2008, of which 25.3 million hectares annually are planted in the United States.



Our goal is to reduce poverty in rural Armenia by helping increase the number of farmers adopting no-till system practices, thereby transforming Armenia's agricultural practices into a more modern, economic, and efficient farming methodology, one in line with those of other more advanced nations.

#### 3. Measures used to determine outcomes

The following measures were used to determine progress in project outcome:

- Continuing interest, from the farming community, in participating in training seminars that ATG holds in various part of the country.
- The increase in the number of farmers attending field demonstrations.
- Comparative analyses between conventional farming and conservation methodology.
- Differences in tangible yield outcomes between the fields planted with no-till systems vs. those planted with conventional tillage farming
- The increased interest in farm profitability from reduced operating cost and increased farm income.
- Public and media interest (both press and TV) in covering field demonstrations in order to communicate to the public the benefits of conservation agriculture.
- Interest, on the part of the Armenian government, in incorporating conservation farming as part of their sustainable national economic strategy.

#### 4. Successes and/or challenges that have been made. Challenges encountered and resolved.

#### A. Success Story:

The first harvest of no-till conservation farming yielded a stunning 5.5MT of wheat per hectare. On average, the total yield of no-till fields was not less then traditional tillage farming.

Our Country Director Gagik Mkrchyan and his Deputy Karen Hakopyan in Armenia report that one of the ATG co-operating farmers, Hovhanes Gaboyan of Karnut Village in Shirak Marz, who utilized the no-till system in planting his 1.3 hectares, had a yield of 7.2 MT of wheat.

A year ago the same farmer, having used traditional tillage and the same type and quality of seed on the same field, had yielded a total of 4 MT of wheat, this, in itself a known improvement for any ATG associated farmer.

However, here is what Karen and Gagik wrote from Armenia:

"Our trip was very good. Because Hovhanes Gaboyan and we all were quiet pleased with the harvest, from 1.3 ha he took 7.2 MT food wheat, it's 5.5MT per ha. Nobody expected that yield.

"Before harvest people started to bet on with each other concerning the yield. The maximum predict quantity was 4.5 per ha, but all were wrong and were pleased when it was 5.5 MT."

"There were many local farmers, employees from Ministry of Agriculture, Department of Science, and Plant Cultivation Department, Head of Soil Erosion from the Soil Institute, Director of Agricultural Collage, as well as the chief of irrigation department, and Shant TV – the news was reported over the weekend on local TV. It was a strong case for no-till technology."

Below is the comparison chart of wheat yield from 1993 to 2009 on the same 1.3 ha of field that Hovhanes Gaboyan farmed prior to and after receiving ATG assistance:

History of Gaboyan field

Year	ATG Technical Assistance	Hectare	Results
1993	Prior to ATG Assistance	1.3 ha	1.7 MT
2001	Gaboyan starts receiving Technical Assistance from ATG		
2008	Yield with traditional tillage farming on the same plot	1.3	4.0 MT
2009	With No-till systems technology (planted in Fall 2008)	1.3	7.2 MT

### Photos 4 and 5



Gaboyan in his no-till wheat field a week before harvesting his record crop of 7.2 MT



Harvesting no-till wheat field in Karnut Village Shirak Marz on August 13, 2009

#### Educating the Leadership and the Public

We succeeded in our efforts to inform the Armenian government official about the benefits of Conservation Agriculture to their country, and obtained the following results:

- 1) Seventeen (17) members of the Armenian National Parliament, representing their Agricultural Block visited our no-till farms in Shirak and Lori regions in March.
- 2) On May 22 the Minister of Economy, Mr. Nerces Yeritzyan along with the Minister of Agriculture, Mr. Gerasim Alaverdyan, accompanied by the Governor of Armavir Marz, Mr. Ashot Ghahramanyan and their staffs spent a full day visiting ATG warehouses in the Armavir Region and wheat fields planted with the no-till system, in order to learn about the benefits of these practices. Furthermore, the Ministers observed the immediate environmental benefits as well as the economic output of such program for their country.
- 3) The Armenian government is in the process of evaluating the concept of the no-till systems technology with the intent of promoting its benefits to the farmers.

#### Photos 6, 7 and 8



Gagik Mkerchyan ATG Armenia director with the Minister of Economy, Mr. Nerces Yeritzyan the Minister of Agriculture, Mr. Gerasim Alaverdyan, accompanied by the Governor of Armavir Marz, Mr. Ashot Ghahramanyan and their staffs, spend a full day visiting ATG wheat fields planted in Armavir Region with no-till systems technology.



This year ATG focused heavily on educating the leadership (17 members of Parliament representing Agricultural Block) and the public through the media (TV and Press) about the benefits of the Conservation Agriculture to the people and the country.

#### B. Challenges that we encountered and how were they resolved

Farming with the no-till systems technology is a new concept that ATG introduced to the Armenian farmers. Naturally, we anticipated some reservations from the local farming community to adopt this approach in their farming practices.

Due to hard physical labor, farming sectors are among the most conservative segments of society, the members of which are cautious about adopting new practices. In that regard, the Armenian farmers are no different from farmers around the world. They are cautious about adopting new farming methodology before being convinced that their hard work will not be in vain.

The situation was not any different with the Minister of Agriculture and senior staff members who were not previously exposed to this information.

To overcome these challenges ATG relied on 20 years of experience in introducing new farming concepts to the Armenian farmers, working with them in a gradual and systematic way.

ATG projects are focused on providing on-going, extensive educational and training programs to the individual farmers/ small businesses, in order to gradually change existing mindsets and management behavior, to improve and modify farming practices, with the intent of helping farms function more efficiently, ultimately, to achieve increased productivity and profitability. In general ATG follows these simple but comprehensive steps to make our projects sustainable and lasting: *(For more details please referee to see Section 7, i, page 14)* 

#### **Financial Challenges**

The conservation farming and no-till systems technology require persistence, and continuous involvement and follow-up to assure its success. ATG envisions that it will take approximately five to seven years to complete a wider transformation project. To that end and because of limited resources available to us currently, during the past year ATG focused its efforts on educating the local authorities and a few key farmers on the benefit of conservation agriculture, urging them to incorporate, and help promote, these farming practices among their people. We succeeded in our efforts, for which we express special thanks to the Lincy Foundation and our supporters throughout the United States.

#### Photos 9 and 10



ATG Armenia Director Gagik Mkerchyan during his No-till Field Demonstration Seminars. ATG staff conducted 36 such seminars in 18 different geographic regions during 2008-2009

#### 5. Partnerships with other organizations and our experience working with them.

The nature of our cooperation with other entities is twofold: First, with the private sector, secondly, with the government. ATG works with individuals who are willing, ready and able to meet our criteria and farm management practices. Based on their performance, these individuals are then invited to join the Seed Producers Support Association that ATG has formed in 1998. The association has its own guidelines to maintain production quality and standards. ATG also works with local organizations that are willing to utilize western farming practices and expand their use, among their members or constituents. During 2009 we assisted Very Rev. Ft. Anton Toutounjiam, representing the Armenian Catholic Communities of Chitankov, Azadan, Arevig, Panuk, and Lanchik to our list of participants. Ft. Toutounjian wanted to help small farmers utilize no-till system technology during wheat cultivation. In the previous few years we co-operated with World Vision in Sissian region. ATG supplied the high quality wheat seed, while WV provided the funding to procure needed farm input to help farmers cultivate their lands. While the ARS and Peace Corp distributed vegetable seeds that we had supplied.

#### Photos 11 and 12



Gagik Mkerchyan explains to Rev. Father Anton Toutounjian the benefits of the no-till system farming technology. ATG is assisting Fr. Toutounjian in his efforts to help the farmers (February, 2009)

Primarily our partnership with other organizations is based on sharing information and technology that we introduce to the country. ATG shares its experience and knowledge at no cost to other partners. Partnership has its own risk of course, particularly when responsible parties do not follow the provided guidelines in a timely manner, which may result in a lower crop yield.

ATG keeps appropriate ministries and institutions in the government of Armenia informed of its activities by explaining the benefits of our projects to the *People* and the country of Armenia. Institutions include the Ministry of Economy, the Ministry of Agriculture, the Department of Science, the Plant Cultivation Department, the Soil Institute and Soil Erosion Department, the College of Agriculture, and the Agricultural Committee of the National Assembly of Armenia. Special invitations are issued to all of these departments and institutions to participate in our seminars at all times. In all our conversations and in co-operation with the above-mentioned entities, we emphasize the role of the government as a regulatory agency.

It is our belief that by educating and involving public and private sectors in our program, we will strengthen the successful and sustainable economic prospects of our projects.

# 6. Lessons that we learned during 2009 period that will help us in our continued efforts to achieve our intended outcomes

The most important lesson that we learned during this cycle of the grant period, is to be persistent, while consistently focused on the success of a project. This lesson became even more fundamental to us than before, as we faced our own challenging economic times. We are ending the 2009 calendar year with a positive outcome, particularly, considering that, due to change of priorities, one of our major funding sources – the US government -- has not funded this program. As a result, we modified our approach. Instead of implementing a project at a full force, we focused our attention on education and seminars. We transported the single no-till planter that we currently have in Armenia to 18 locations - from one region or town to the other, with the purpose of maximizing its visibility and educating the farmers about the benefits of its use through field demonstration and plantings.

Meanwhile, instead of purchasing all 18 no-till planters at once, we are working to secure additional funding, in order to purchase two or three no-till planters per year, until we reach our goal.



#### Photo 13 and 14

To maximize the visibility of the no-till system farming methodology, this year ATG transported the planter to18 regions and towns to demonstrate its use and benefits to the farmers.

# 7. Steps that are being taken to ensure the sustainability of our project/program or organization beyond this period

Introducing crop rotation and the No-till System farming technology is the third *major sustainable development* project that ATG has undertaken in Armenia. The management and decision-making process of the previous two projects, a) the Seed Multiplication Program, and b) the Phylloxera-resistant Grape Nursery Project have already been transferred to trained local teams. Likewise, while we are in the process of securing funding to purchase and transport the total number of pieces of equipment we need, ATG is training Armenia-based staff in their management. It may take up to 5 years, with focused commitment from all the members of the ATG team, to achieve our goals. However, the result will be a lasting and more productive and stronger Armenia.

#### i) This part applies to Section 4 as well

*First*: conduct one-on-one consultation with farmers who are receptive to the idea of trying new technologies. We approached ATG farmers, whose trust we have already gained. These are the farmers who have benefited by cooperating with ATG and have seen their yield and profits increase over the years. While these farmers trust ATG technical advice, we encourage them regularly to verify the results of new technology on ATG trial fields, prior to their investment of resources and time of their own on their fields.

*Second:* conduct field demonstrations and seminars during the year on almost every step of the farming process, which includes the land preparation, planting, pest management, applications, and harvesting.

*Third:* invite neighboring farmers to share our experience and the results of the new technology, allow them to observe the process, and provide them the opportunity to adopt the new system.

*Fourth:* invite the Ministry of Agriculture staff to all the above-mentioned activities and allow them to observe, as well as challenge, the process, as they contribute their knowledge. Their interaction with the ATG Technical advisors and the farmers is one of the healthiest learning processes that farmers go through.

*Fifth:* invite the media to cover all the above activities – thereby encouraging an open information-sharing process between those who have know-how and trainees.

By its nature, as in previous ATG projects, the complete adoption of the no-till systems by the Armenian farmers requires at least five years of intensive management-training and follow-up. With a continuous education process in place, and by transferring knowledge and technology, we expect to empower numerous individuals, people who will, in turn, ensure the sustainability of our projects.

Knowledge is power. Once it's transferred, it flourishes. No-one can take it away from the people.

#### Photos 15 and 16



Early results of a no-till field planted in Fall 2008 (L)



The harvested seed has been cleared, processed and treated with inoculants prior to planting in Fall 2009

For a successful seed industry to sustain itself, it takes seven generations of growing seasons for wheat seed, from it origin of *R&D*, to *Breeder*, *Foundation*, *Registered*, *Certified* and *Common*, prior to being used for various purposes and consumption. ATG established this process in Armenia.

#### Value- added income-generating related activities

#### a) Bulghur -- Processing and Marketing

Bulghur processing was one of the ways that ATG helped farmers diversify their activities and generate additional income. To that end, the ATG staff in Armenia had manufactured a bulghur (ground wheat) processing machinery. The purpose of this project was to help farmers and wheat growers market a value-added product; instead of selling their wheat harvest only to milling companies (at times at depressed prices), they can now sell a finished product directly to a store or to consumers.

#### Photos 17 and 18



Processing equipment and bagged bulghur – ready to be marketed at local grocery stores

#### b) Building an Organic Corn Seed-Bank.

For years Armenia lacked a strong foundation of its own seed supply. Armenia had to import corn seed, for human consumption, animal feed and, particularly, for a crop rotation system. In addition to wheat, alfalfa, and barley seed, ATG is now generating organic, non-hybrid corn seed for the farmers. This project is another way of helping Armenia's agriculture to become sustainable.

#### Photos 19 and 20



ATG's Seed Multiplication Program includes variations of the following seeds (irrigation and for dryland) types: Winter and Spring Wheat; Barley, Corn, Alfalfa, Sainfoin, Chickpeas, Beans and Lentils. As such, ATG encourages crop rotation system, thereby informing the farmers from the danger of monoculture farming practices.

#### c) Farm Equipment Maintenance and Repair Shop

Maintenance and repair of the equipment is one of the key requirements for sustainable projects in farming. We stressed the importance of this to our staff in Armenia, who then set up a repair shop at their warehouse headquarters to service their equipment. In addition to repairing their old equipment, they have come up with innovative ideas for modifying even new ones as well.

#### Photos 21 and 22



The staff at the ATG farm equipment maintenance and repair shop modified the new no-till planter (photo on the left) by adding a self-clearing mud element to the wheels, thereby avoiding -- during the planting process – unnecessary stops to clear the wheels, thus, saving time. The farm equipment maintenance and repair shop is designed to help the sustainability of the project. Photo on the right – workers are repairing an old land-leveler.

Photos 23 and 24



End of 2009 planting Season



November 30, 2009 – Ready for Spring Planting

ATG stresses the up keeping of farm equipment to our staff. The pictures above demonstrate the CASE International Drill that the organization uses before and after its being repaired and maintained.

The farm equipment maintenance and repair shop is designed to help project sustainability.

#### Photos 25, 26, 27, and 28

Over 60 years old Massy Ferguson tractor undergoes a complete overhaul by the ATG Mechanics at the ATG farm equipment maintenance and repair shop in Armavir, Armenia.



#### 8. Significant board and/or staff changes

After serving diligently for 5 years as president of the organization, Nubar Tashjian, JD, requested to step down from his position, while continues, nevertheless, to serve as a board member. Mr. Tashjian has served ATG since its inception in 1989. During his tenure ATG successfully completed two major development projects, a) the Seed Multiplication Program, and b) the Grape Nursery Project. ATG transferred the operational management of these projects to Armenia-trained team members. The projects are now functioning as self-sustaining entities in Armenia.

ATG's Board unanimously elected Dr. James P. Reynolds, DVM, MPVM as the 6<sup>th</sup> President of ATG. Dr. Reynolds has been serving on ATG Board since 1995, and as its Vice-President, since 2003. He was a colleague of ATG's founder, the late Dr. Arthur O. Hazarabedian. Dr. Reynolds has overseen ATG's veterinary diagnostic program. In that capacity, he visited Armenia on numerous occasions. Dr. Reynolds, a highly successful large animal veterinarian, has an impressive array of professional credentials. There are no other significant ATG Board, or staff, changes.

# 9. Our tax status under sections 501 and/or 509, or any other change that affects our status as a public charity.

There are no changes in our tax status. ATG continues to operate as a 501 (c)3 public benefit Corporation. In Armenia, we consolidated and moved ATG Yerevan office to ATG warehouse and field operation headquarters in Armavir. The move had several benefits among them; a) being closer to our farmers, b) emphasis rural development, c) reducing overhead and operating expenses.

#### Review and Update on ATG NK Activities Phylloxera Resistance Grape Nursery in Artsakh

ATG had the foresight some 12 years ago to establish a phylloxera resistant grape nursery in Artsakh, Armenia with resistant rootstocks from California to graft this stock on old indigenous grape varieties in Armenia and Artsakh saving from complete destruction.

The Nursery was the brain-child of Vladimir Zakiyan, ATG representative in NK. His goal was to put a strong foundation on reviving over 3000 years old wine and grape tradition in his fatherland.



In 1998 under the supervision of Vladimir Zakiyan, ATG-NK Director, (*in the middle*) and Arkadi Markarian, Field Supervisor, people of Kheramort Village cleared the fields from the impact of the war, and prepared the groundwork for the nursery



Villagers planting 5400 Phylloxera resistant grape rootings donated by Cal Western Nursery Eighty percent of the Village was destroyed during the 1989-1993 war.

The value of these resistant rootstocks varieties are recognized all around the world. Thanks to your financial contributions ATG build a strong foundation that could save the vine industry in Armenia.



Villagers attain and irrigate the grafted grape seedling growing at the nursery

In this regards, ATG thanks the Diaspora Armenians and various Foundations for their support of our efforts. For the past four years the project operates as a self sustained entity, administered and managed by the local staff. Monthly financial report is submitted to ATG Headquarters in Fresno.

#### Results

Since the establishment of the ATG phylloxera resistant grape nursery, the number of acres planted with new vines in Karabagh has more then doubled increasing from 2,913 acres to 6,653 acres.



Portion of 15 acre nursery and one of the vineyards that ATG planted with pest-resistant rootstocks

In the past four years alone the nursery has generated over \$500,000 reported financial resources that were re-circulated in domestic economy.



The amount includes \$398,635 for wages and salaries, and \$48,310 for Social Security benefits.

The project supports the entire 53 family village of *Kheramort*, where the nursery is established.

In addition, the nursery helped jump start the table grapes and wine industries, creating hundreds of other related jobs in the area.

#### The Benefits of the Grape Nursery to the Farmers

The benefits of the pest-resistant products of the grape nursery are available to all farmers. Grape growers in Armenia can even take advantage of a wonderful opportunity, not only to obtain resistant rootstocks, but also to learn from the experience that the ATG Nursery has gained over the years.

Farmers may even custom-order, in advance, specific types and quantity of the domestic grape varieties – already grafted to phylloxera-resistant rootstocks.

#### **New Challenges**

The appearance of the pest results in a dramatic decline in yields in the vineyards and cause enormous damage in vine industry in a very short period of time to the detrimental of Armenia.

The spread of the phylloxera has infected thousand of acres of vineyards worldwide, causing significant economic damage to their industries. They include areas in some of the world's most famous wine producing regions such as France and Italy, including California's Napa Valley. According to a news release dated November 16, 2009, Avag Harutyunian, Ph.D the chairman of the Union of the Armenian Winemakers states that during the next 5-6 year "Armenia would risk losing its vineyards" due to the presence of phylloxera in the country if appropriate actions are not taken very soon. The pest has been found in the vineyards near the city of Etchmiadzin in Ararat Valley.

Dr. Harutyunian states that it may require some \$600 million to fight the Phylloxera pest infected vineyards in Armenia.

It will take more then 8 years for Armenia to recover from this economic challenge. ATG will solicit resources to a) expand the capabilities of the pest-resistant grape nursery; b) conduct educational seminars in Armenia; c) assist the farmers to rejuvenate their vineyards before it's too late.

#### **Other Activities BikeForHope.com / Tour de Fresno -Charity Fun Bike Ride**

BikeForhope.com is one of the ATG's fund raising activities. The mission of this activity is to promote agrotourism, rural development and healthy lifestyle in Armenia. For the past several years, and in order to promote agi-tourism, ATG has organized six [6] annual tour of Armenia bike-a-thons, each lasting seven days and covering approximately 700 miles, attracting volunteer cyclists from US and Europe to support ATG mission.

This year, on September19, 2009, we held the first Tour de Fresno event that attracted over 150 riders. The Fresno Police Department escorted the 35-miles ride through the streets and intersections of Fresno. This ATG initiated bike ride received overwhelming community support, including City and Country Governments. We anticipate over 1,000 riders to participate in the second Tour de Fresno scheduled on September 18, 2010.



We invite you to visit *Tour de Fresno on Facebook* and view some of the pictures posted there. Proceeds from BikeForHope events assist rural economic development projects in Armenia.



Previous BikeforHope events have supported other humanitarian and development projects such as establishing the phylloxera pest-resistant grape nursery; promote Conservation Agriculture through no-till systems technology, and Wholesome Milk Project. In 2006, ATG purchased and delivered four milk cooling tanks (each holding 1000 gallons) from the United States to Armenia. Shipment (pictured above) provided courtesy of the UAF. The milk tanks are located in four villages benefiting 3200 families who will be able to store their excess milk and sell it to dairy processors to generate additional income. These locations could also be used as field stations under the Ministry of Agriculture as inspection sites for the Veterinary Diagnostic Laboratory to help detect and minimize the spread of infectious diseases such as anthrax, rabies, salmonella, tuberculosis and brucellosis that are transmissible from animals to humans through normal contact and food supplies, and thereby help reduce risk to the public health in Armenia.

#### Previous Humanitarian and Development Projects that ATG Accomplished includes:

ATG has been operating in Armenia since 1989. Here are some highlights of humanitarian and economic development projects that ATG has accomplishment during the past 20 years:

- Helped install anti-hail cannon system (15 units in four regions of Armenia) to protect thousands of acres of grain and fruit tree farms and the growers from the potential millions of dollars of annual loses due to hail damage.
- Participate in land privatization process in Armenia; also drafted the Land Privatization Law and Farmland Legislation for the NK (Artsakh) Parliament in January 1998.
- Supplied four (1000 gallons each) refrigeration milk tanks to four villages serving 3200 families.
- Pioneered Land Reclamation Project on 60 acres of land in Sis Refugee village, by installing underground drainage system to clear the alkaline from the soil, converting the land to a productive farmland. Besides helping the refugees, the project was showcased as a demonstration model for the local government to follow and expend it to other parts of the Ararat Valley, where some additional 70,000 acres of land await reclamation. Funding includes Garabedian Foundation and private donors.
- Established and created a self-sustaining phylloxera-pest resistant grape nursery that as of today has helped increase the number of vineyards in Artsakh from 2,913 to 6,653 acres.
- Drilled Artisan wells to provide drinking and irrigation water to two different villages.
- With the USIAD funding manufactured farm equipment (30 land levelers and Dixon Heroes) in Armenia and distributing them in the farming communities for use by the farmers at no fee.
- With USAID funding construction and distribution of 3,000 behive boxes (4 levels each) to 300 families in Artskah, and helped a local charitable organization to market the pure and organic honey.
- Worked with UC Davis Veterinary Medicine to procured and supplied veterinary medicine including artificial inseminations to improve dairy productivity, and vaccines to fight animal diseases such as Hoof and Mouth, Brucellosis and other illnesses in the cattle and related livestock industries.
- Distribution assorted varieties of vegetable seeds valued over \$16 million received through the UAF to more then 150,000 families. Also, 200 tons of California raisins to the school systems and 75 tons of dehydrated vegetable soups to the needy families, orphanages, and nursing homes.
- USIA funded Student Exchange program between six High Schools from Armenia and Fresno (1999-2000).
- Established a private sector seed production industry, and helped to set up government regulations to maintain production inspection, quality and standards. ATG has developed had and has certified five new varieties of seeds (wheat and alfalfa) by the Armenian Government. ATG's co-operating farmers today possess and utilize knowledge and technology transferred to them by this organization during more then 360 educational seminars and field demonstrations in 302 villages in rural Armenia thus far. The result is obvious: now, 681 farmers are in command of the education and know-how that can sustain the natural life-cycle of their seed multiplication businesses -- a life-cycle that requires seven growing seasons. While improving the country's trade balance, Armenia's farmers also increased the number of beneficiaries. These are multiplied by the thousands -- in additional grain growers, in economically better-sustained farm families, and in the better-fed general public. Through the major funding by The Lincy Foundation and the USDA Foreign Agricultural Services, the seed industry, as a self-sustaining economic force with its system wide impact, will last beyond our times.

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