

Armenian Technology Group, Inc. (ATG)

Armenia – 2004 Activity Report

Table of Contents

Executive Summary	2
ATG Foundation	3
1. Summary of 2004 Activities	3
2. Wheat and Barley – 2004 Summer Yields	3
3. Seed Production	4
4. Alfalfa and Corn	4
5. Capital Investment	4
6. Results of Sales	4
7. Improvement of Land	5
8. Improvement of Administration	5
9. Seed Production Plans for Next Season	5
10. Sis Village Soil Reclamation	5
11. Current Challenges and Potential Solutions	6
ATG-Seed Producers' Support Association	7
1. Spreading Information on Wheat and Barley Varieties	7
2. Organizing Production	7
3. Centralized Marketing	8
4. Financial Assistance to SPSA farmers	8
ATG-Nagorno Karabagh	9
1. Wheat Seed Multiplication Project	9
2. Grape Nursery	9
3. Accomplished Tasks	9
Appendix: Tables & Charts	10
ATG Foundation	10
1. Wheat & Barley Yields	10
2. Breeder Seed Yields	10
3. Capital Investment	11
4. Plans for Next Season	11
ATG-Seed Producers' Support Association	12
1. Locations of Test-Plots	12
2. Seed Varieties in Test-Plots	12
3. Farmers Cooperating with ATG-SPSA	12
4. Approved Seed for Marketing – 2004	13
5. Seed Orders (as of 9/1/2004)	13
ATG-Nagorno Karabagh	14
1. 2004 Vine plant realization (1st Quarter)	14
2. Jobs Created (Khramort Village)	14
3. Salaries and Wages	15
4. Financial report (January-April)	16
5. SMP – Wheat Yields (3rd Quarter)	16

Armenian Technology Group, Inc.
Armenia – 2004 Activity Report
Executive Summary

2004 is the fifteenth year that the Armenian Technology Group, Inc. (ATG) has been working with private farmers to create a self-sustainable agricultural economy in Armenia and Nagorno-Karabagh. ATG has founded three subsidiary organizations there, all of which are now operated and maintained by locals: the Armenian Technology Group Foundation (ATGF), which carries out ATG's programs in Armenia; the Armenian Technology Group–Nagorno Karabagh (ATG-NK), which carries out ATG's programs in Karabagh; and, the Seed Producers' Support Association (ATG-SPSA), which organizes private growers to provide Armenia's farmers with high-quality grain seed in the market economy. These organizations are responsible to the ATG headquarters in Fresno, California, which oversees their finances and project status.

ATGF has expanded its operations in 2004 through both the lease and purchase of lands and facilities. The foundation is improving the output of its fields by leveling land, clearing away rocks, and installing proper irrigation networks. They have also bought needed equipment, and are preparing to buy a large warehouse to centralize operations. ATGF has increased its production of 'foundation' seed and expanded it to include corn and alfalfa. The foundation is actively implementing a soil reclamation project in Sis village.

ATG-SPSA has continued working with its member farmers to produce the highest possible quality of seed. The association is helping to spread information on productive seed varieties from local regions to the rest of Armenia. They have provided member farmers with funding and technical expertise; but, the farmers are becoming more self-sufficient in acquiring necessary inputs. SPSA is also expanding and organizing the marketing of its seed across Armenia.

ATG-NK has continued the Seed Multiplication Project in Karabagh. Their grape nursery is continuing to supply disease-resistant rootstocks to Karabagh vineyards. They have also accomplished several small projects to increase efficiency.

ATG's impact in Armenia has continued through 2004 due to greater local control over both field and office operations. All three subsidiary organizations are facing challenges and improving production of valuable inputs for Armenia's private farmers. As these organizations expand, their income is gradually replacing foreign funding as the means to run their operations. ATG anticipates that its subsidiary organizations will become self-sustainable by the end of 2005, thus fulfilling our long-term goal of transferring control to local management.

Armenian Technology Group Foundation
2004 ACTIVITY REPORT *(see tables and charts)*

1. Summary of 2004 Activities

In 2004, the ATG Foundation continued implementing its twin policies of promoting self-sufficiency and economic coöperation among private farmers. The Foundation has streamlined its staff to increase efficiency and organization, and has also emphasized accountability in its work. Our Yerevan office improved its functioning by mandating periodic reports of administrative and financial activity. We also introduced new loan contracts to maintain farmers' responsibility and secure required reimbursement.

ATGF has made its operations more effective through the purchase of new lands and the improvement of old lands. We have also bought agricultural equipment to work these expanded fields, and have trained our staff in the proper usage and maintenance of this machinery. The Foundation has participated in irrigation activities with communities located near ATGF fields, and continued work in soil reclamation in Sis village. Our Yerevan office has held negotiations to purchase a new main warehouse, in which we plan to centralize all our previous warehouse activity. As we have not yet moved into the new warehouse, we have rented two temporary warehouses for three months to organize seed payback in two regions. Next year our field staff will be able to conduct all our necessary operations in the new warehouse, which will allow for greater efficiency.

ATGF has not only continued but also expanded on the production of 'foundation' seed that it established last year. Our agronomists have introduced new plant varieties for the seed production process, including two American varieties of corn (maize) and three of alfalfa. We will thus be able to offer farmers high-quality corn and alfalfa seed for the next planting season. The foundation has increased promotion for U.S. seed varieties through television and newspaper advertisements; we have also had our activities described in publication, such as a two-page article appearing in the newspaper 'AgroNews'.

ATGF has coöperated with many international organizations to gain support and credibility for Armenian agriculture. Our staff took part in several meetings conducted by such organizations, including the U.S. Embassy; we presented and promoted ATGF activities to them at these meetings. The foundation also participated in the Caucasian Conference organized by CIMMYT (International Maize and Wheat Improvement Center); we arranged future collaboration in the introduction of new grain varieties to Armenia.

The data presented below illustrate ATGF activities in the 2004 year:

2. Wheat and Barley – 2004 Summer Yields

The results of the 2003-04 season wheat and barley seed production are presented here. These results include only the ATGF-owned plantations; they do not include the seed that was produced by farmers on their own fields. The plantations are separated into two categories: Registered and Certified seed production and Breeder seed production. The results are given in **Table 1** and **Table 2** correspondingly.

The yields are continuing to improve, but we still face two major obstacles:

- a) During the second half of June and all of July there were challenges with irrigation in many of the wheat fields. We managed to irrigate 20 days altogether, adequate but less than optimal.
- b) It hailed on 9th July on many of the fields. The hail damaged the wheat heads and scattered the grains. The following two weeks were rainy and windy and it was not possible to harvest; more grains were scattered. Out of 21.4 ha of wheat and barley plantations in Talvorik region, 19.2 ha were damaged by hail. Random measurements in the fields showed that there were from 2800 to

3500 grains on each square meter of the field ground just before harvesting. These figures do not take into account the grains that were lost in soil cracks or picked up by insects and birds. The figures in the table correspond to 1.2 – 1.5 tons per hectare. Thus, we will fall 23 to 29 tons short of our optimal goal for all plantations combined.

3. Seed Production

In 2004, 53 farmers were involved in the 1st generation seed production program, comprising 514 hectares (ha) of fields. After inspection by our regional agronomists, about 450 ha were registered as valid seed plantations. Approximately 1300 tons of seed have been produced in above mentioned fields. The figures currently are being processed by our regional agronomists, and exact figures will be reported as soon as possible.

According to the contracts we have concluded with seed producing farmers, 144.4 tons of seed will be paid back. As of today, 104 tons of seed has been returned (72 percent of the total). Against 7.65 tons of payback, 6.4 tons of seed has been returned (83.7 percent).

We are currently working on the return of the remaining seed. This will enable the warehouse to accept and process the incoming seed. There are only four farmers who have faced significant obstacles this year: two farmers had fields that were damaged by hail, and the other two farmers had financial challenges and have not yet paid back. We secure the farmers' liabilities by pledges, and are now looking at solutions to facilitate return of seed.

4. Alfalfa and Corn

In the spring of 2004, 21.1 ha of alfalfa were planted in the following varieties: 'Wrangler'—4.0 ha, 'Apollo'—6.0 ha, and 'Viking'—11.1 ha. Despite sub-optimal irrigation, we can still obtain a full harvest from the fields, which will serve as good seed fields next season. At the same time the alfalfa will enrich the soil with nitrogen and further improve wheat yields.

With the help of ATG, Inc., ATGF will import more of the two American varieties of corn (maize) we have tested: 'Rieds' 100 and 'Greenfields' 114. These varieties are not hybrids and can be reproduced locally. 'Rieds' has been planted on 12 hectares in our own fields. This variety has shown good results, which will be summarized after the harvest. 'Greenfields' is being tested in a private farmer's field on small piece of land (0.5 ha). Its results promise to be excellent.

5. Capital Investment

During 2004 ATGF purchased several pieces of farm equipment and land (see **Table 3**). In 2005, we will purchase both a hay bailer and a hay mower, both of which will help us accomplish our goals.

6. Results of Sales

As of 25th September 2004, 20.5 tons of seed have been sold; these include 10 tons of "registered" wheat seed, 6 tons of 1st generation wheat seed and 4.5 tons of 1st generation barley seed. We are trying to sell the seed at the highest possible price and hope to sell all stock that we have separated for sale. 972 of the 2,435 bales of hay (about 48.7 tons) produced in alfalfa fields were sold; the remaining quantity is being stored in a nearby village as we continue negotiations with a potential buyer.

7. Improvement of Land

In the spring of 2004 ATGF cleared many fields of rocks. We also had many fields leveled to improve their irrigation conditions. About 360 tons of manure were purchased, transported and spread in the fields. In the 2003 and 2004 seasons we have been trying to maintain scientifically justified fertilizing rates for nitrogen- and phosphorus-based fertilizers.

8. Improvement of Administration

The vast majority of the contracts and agreements that ATGF conducted either had our lawyer's visas or were discussed with our auditors. We introduced an order that all field and warehouse expenses must be documented and reported operatively. This measure has helped to increase control over our expenses.

During several meetings with the U.S. Embassy, ATGF raised the issues of taxation for U.S. assistance projects in Armenia. In our last meeting, organized by the USAID Taskforce team, the issue was taken into account and we were told that solutions would be developed in the negotiations with the Armenian government.

9. Seed Production Plans for Next Season

According to our plans for next season, we will plant about 35.0 hectares of our fields with wheat and barley, comprising 25 ha of seed production and 10 ha of breeder fields (see [Table 4](#))

As of September 25th 2004, we have finished planting on 6.3 hectares, are continuing land processing and planting operations on 6.7 hectares, and will plow the remaining 12 hectares as soon as the corn is harvested.

10. Sis Village Soil Reclamation

In the spring of 2003, 13.5 ha of our fields were planted with barley. The growth of the barley showed that excess salt had not yet washed off the field. Desalinization is a slow process that can encounter many obstacles; while our program is steadily progressing, we have faced a few challenges: the slope of the field is not of optimal grade, and irrigation water has pooled in some places. Thus, the barley grew to desired standards in many areas, but had faced obstacles in impermeable and poorly leached soil. After discussing these challenges with our specialists, we outlined the following steps: construction of a proper irrigation system, creation of a normal slope for irrigation, improvement of soil permeability, and leaching of soil.

During 2004 an irrigation network was constructed on 25 ha of our field. The field first was leveled by bulldozers to ensure a normal irrigation slope, and then was deeply plowed and re-plowed to improve soil permeability and kill bamboo roots. Finally, leaching beds were constructed for salt washing. Currently about one fourth of the field has been leached, and the rest will undergo leaching shortly.

On three 0.7 ha plots of our field, we are carrying out tests to establish the best economically justified rates for different combinations of soil ameliorants. The results will determine our plans for the whole field.

Amelioration of saline land is a very important issue for Armenia, which has about 30,000 ha of saline lands. The Armenian government and the Ministry of Agriculture are looking for possibilities to reclaim much of this land and return it to agricultural production. These land reclamation plans have been incorporated into collaboration programs with the European Union, and the Ministry of Agriculture is determined to present the issue for inclusion in the Millennium Challenge program.

The Ministry of Agriculture has discussed the issue of saline lands on several occasions; it has also been working actively with ATGF in Sis village. The Ministry considers the Sis village soil reclamation project to be a model for other reclamation projects that it is planning to implement on a larger scale throughout Armenia. The Foundation is providing the knowledge and expertise it has gained in Sis to the Ministry for future projects. Thus, our Sis project and its results are of key importance for both ATG and the Ministry of Agriculture, as successful desalinization there can create a solid foundation for these further land reclamation activities. The Minister of Agriculture, Davit Lokyan, has several times expressed the importance that he gives to this project.

In Soviet times, the only technique used for salt leaching was soil washing with huge quantities of sulfuric acid (from 40 to 75 tons of 100% acid!). The Foundation does not use this technique for obvious economic and ecological reasons; we are now planning to train soil experts in an improved technique that uses gypsum as a soil ameliorant.

Analysis of the current financial status of the Sis project shows in 2005, we must procure more funds than were previously budgeted for project finalization. By our rough calculations, an additional \$10,000 (USD) is required to finish the planned jobs and prepare the soil for planting. A new budget proposal will soon be presented to our board. Our Yerevan office discussed its main features with ATG Executive Director Varoujan Der Simonian during his last visit to Armenia.

11. Current Challenges and Potential Solutions

During the first 9 months of this year, ATGF has fulfilled the declared goals and plans. Our main goal, the production of stable “foundation” and “registered” seed, was begun on our own lands and will be accomplished within reasonable time limits.

In 2004, we have overcome the shortage of fields by purchasing 88.65 ha of land in Talvorik and Artamet villages (48.15 ha and 40.5 ha, respectively) and 12.6 ha of land in Maisian village. To reach our ultimate goal of self-sustainability, ATGF will purchase more new lands in the coming year to organize stable seed production, which will require 250 to 300 ha of land for the seed plantations, along with normal field rotation. Already, 11.5 ha of the Sis project fields currently under reclamation will pass to our control following the completion of the project.

All our Artamet lands are well-provided with water. In one of the fields, we are going to repair and enlarge the irrigation semi-pipe canal. We are persuading the Irrigation Union management to place this job into the World Bank’s plans for this year. This canal will then be repaired, either this fall or winter.

Our Talvorik lands are at the end of the irrigation canal, and in peak hours we have certain obstacles delaying optimal irrigation. To solve this we cooperated with the Irrigation Union to repair the existing deep well and its pump. Now the well gives 20 l/s water, but not yet enough to water the entire land. We need to construct a 5 km pipeline, which will secure water provision under all circumstances. We are currently investigating this solution, and will present the results to the Board as soon as possible. The construction of the pipeline will also enable us to buy additional lands in the Talvorik area.

Our field in Maisian is on rocky ground, and is still saline in a few areas. In 2002-03, ATGF had USDA drill a deep well for this field. This well enabled us to begin cultivating the field. In 2002, we had concluded a contract with the village to rent a plot of land, which turned out to be 12.6 ha large. In the fall of 2003 we plowed the field, cleared surface rocks, and leveled uneven ground before then planting it with barley. The plant growth has not reached its prime potential, showing that the field still has a few saline areas and the natural slopes are an obstacle to effective irrigation. In some places the surface is becoming crusty after irrigation or rain. In other places there is excessive seepage, which can cause water loss and

challenges in irrigation. To continue cultivating the field, we will procure additional investment for further rock clearing and field leveling, construction of a proper irrigation network, and extensive manuring.

As we have not yet transferred into our desired warehouse, we are still in the process of setting up a normal infrastructure for seed processing, storage and equipment maintenance. The proposal to purchase of this new warehouse has been presented to Mr. Der Simonian and Vice President Dr. Jim Reynolds.

ATGF will acquire several pieces of machinery needed for field operations and seed processing, hopefully in 2005. Specifically, we will get an alfalfa seed cleaner, a high resolution wheat seed cleaner, tractor-trailers, a corn cultivator, a hay bailer, and a hay mower.

To overcome all of these challenges, we will continue investing time and money to ensure our success in the year to come.

Seed Producers' Support Association
2004 ACTIVITY REPORT *(see tables and charts)*

Short Description of ATG-SPSA's Operations in 2004:

Before beginning activities for 2004, ATG-SPSA had prepared a strategic plan outlining development for both seed production and marketing. Seed production will be located mainly in the provinces of Syunik and Shirak, and in the Ararat valley; it will focus on producing the highest quality possible of 1st generation seed using the best available seed varieties, fields, and technology. Seed marketing will concentrate on establishing efficient, centralized networks and good relationships with both producers and purchasers; the seeds produced will be sold all over Armenia.

Below we present the most critical activities of ATG-SPSA during 2004:

1. Spreading information about the most common wheat and barley varieties in Armenia:

There are currently many wheat and barley varieties in Armenia that are popular in some regions but barely known in the others. We will thus organize detailed information about the adaptability and yield potential of these varieties so that we can produce their seeds most efficiently and direct their shipments within the country. We plan to have about 20 test plots throughout Armenia involving 26 varieties of wheat and barley. Our team has already completed thirteen of those plots, including those in the highlands of Armenia (see **Table 1**). The rest of the test plots will be set up in the Ararat valley, Yeghegnadzor, and Aragatsotn Marz.

Each test plot consists of 24 seeds/plants of the 26 varieties presented in **Table 2**.

2. Organizing production of 1st generation seed for the 2004-05 season:

Running parallel to our variety testing, we have started large-volume seed production of the most popular wheat varieties in Armenia. The most accepted of these are 'Bezostaya 1' (in the highlands) and 'Stephens' (in Ararat valley and Lori region). 'Dagdas' (in highlands) and 'SN 64' are also gaining popularity. 'SN 64' is the only facultative wheat variety available in Armenia; its seeds can be marketed in both fall and spring. 'SN 64' thus has a key advantage over the other varieties. The Elite generation seed of these high-quality varieties now needs to be reproduced on a mass scale. Moreover, there may be other productive varieties among the 26 mentioned in **Table 1**. We will know more about the strengths of those varieties next year.

ATG-SPSA farmers are entitled to choose not only the variety of their seed but also the supplier; however, this must be a trusted organization. We have given our members information about the organizations selling Elite generation seeds. For this season, we are relying on two main suppliers of such seeds: ATGF (for 'Stephens') and Gyumri Selection Center (for 'Bezostaya 1'). However, we are eager to

cooperate with all other producers and importers of Elite seeds as long as they have large volumes of consistent quality products. ATG-SPSA also helps its members gain better terms of purchase. Our association has negotiated the transaction of ‘Bezostaya 1’ Elite seed from Rubik Karakhanyan, the head of Gyumri Selection Center. Our farmers plan to buy about 50 tons of this seed from the Center. They will also purchase about eleven tones of ‘Stephens’ Elite generation from ATGF.

A key aspect of our operation is producing the seed in our best fields. Our team inspected 900 hectares of fields and selected 700 ha for seed production (this number will be revised after the sowing period). We have continuously provided technical assistance to our farmers concerning the proper application of appropriate inputs.

There are now 38 farmers cooperating with ATG-SPSA (see **Table 3**). As there minor changes will occur, we will present the final list of our farmers, including their varieties and number of hectares sown, to ATG in late fall.

3. Centralized marketing of 1st generation seed produced by SPSA farmers:

ATG-SPSA has personally checked the fields of most of our farmers. The fields of Hunan Petrosyan (‘Bezostaya 1’), Haroutyoun Araqelyan (‘Bezostaya 1’), Sevada Ivanyan (‘Bezostaya 1’, ‘SN 64’, and ‘Dadash’), Armen Araqelyan (‘Stephens’ and ‘Findley’), and Volodia Khachatryan (‘Stephens’) were selected for marketing under the ATG-SPSA brand. We sell the cleaned and treated seed for 200 drams per kilogram. We also market the seed in our own bags, on which we have printed full information about ATG-SPSA, thus making them very efficient tools for advertisement. For example, we finished the first shipment of seed a month ago; we are now getting calls from farmers whom we have not contacted, but who have seen the seed in those bags.

We have succeeded in convincing Garnik Petrosyan, the head of the Ministry of Agriculture’s Department of Agricultural Development, that we will be able to supply relatively large volumes of high-quality seed. We have also visited the heads of the Agricultural Departments of Gegharqounik and Kotaik Marzer. As a result of those meetings, they have sent a number of farmers requesting seed to our office. **Table 4** and **Table 5** present detailed reports on seed approved for marketing and their orders as of September 1st.

4. Financial assistance to our SPSA farmers:

At ATG-SPSA, we know that proper seed production requires the full utilization of both mechanical and organic agricultural inputs. Thus, we have invested about 30 percent more in capital resources than in wheat production. Many Armenian farmers hesitate to be involved in seed production due to substantial technological, environmental, and commercial risks. To encourage these farmers to adopt valuable new technologies, we provide them with financial assistance. The amount we provide will cover no more than 30 percent of the expenses related to seed production. Our association plans to provide this aid in the form of zero-interest loans, divided into two types: individual loans and loans with group guarantees. Our legal experts have already finalized the agreement for the individual loans and are working on that for the loans with group guarantees.

ATG-SPSA also plans to provide short-term zero-interest individual loans to our farmers to organize the shipping, warehousing, and selling of our 1st generation seed in regions of Armenia not currently engaged in seed production (those having less than four ATG-SPSA members). Shirak and Syunik Marzer and the Ararat valley are the main seed producing regions; but, we are cooperating with farmers in other regions (Kotaik, Lori, etc.) as well. Besides producing seed, these farmers act as our representatives in their regions. This allows us to use their contacts and warehouses for seed marketing there.

Armenian Technology Group—Nagorno Karabagh
2004 ACTIVITY REPORT *(see tables and charts)*

1. Wheat Seed Multiplication Project

1st Quarter:

ATG-NK currently owns 48 ha of wheat fields. Last autumn, these fields produced good sprouts; however, January and February brought warm, arid weather, which is unfavorable for wheat. In early April the temperature dropped sharply and the frost caused great damage to our fields. We consider these lands to be of sufficient quality for wheat growing.

We have completed field nutrition on 12 ha of fields. We also treated our fields with herbicide (Phenogon). During these months we received 322,500 (AMD) from the Khamort villagers who received seed in 2003.

2nd Quarter:

Winter rains caused the weeds to grow intensively, especially those resistant to herbicide; unfortunately, the wheatears remain very small. Uncoöperative weather has delayed harvesting; however, the preliminary results are not optimal. The harvest rate is between 1.6-1.7 ton/ha.

3rd Quarter:

Our results have not yet reached full potential (see **Table 5**)

2. Grape Nursery

1st Quarter:

From January to April ATG-NK sold a total of 56,415 vine plants at 16,933,500 (AMD). Of this amount the farmers paid 6,283,000 while 10,650,000 was receivable (see **Table 1**).

In February “LOOM” Ltd. paid the funds for vine plants purchased in 2003 (3,315,000 [AMD]). We have made an agreement with “Capital” CJSC to provide them with 5,100 vine plants; they have paid 306,000 (AMD) in advance.

Between seven and eight thousand (7-8,000) vine plants remained in our fields. During these months we completed grafting about 150,000 cuttings, which remained boxed in our warehouse due to uncoöperative weather.

We pruned all the plants, tied the yielding vines to wires, and stored the cuttings for grafting. We cultivated the inter-row spaces with tractors, and inter-plant spaces by hand. Everything had been very well, until the early April frost damaged the buds of the young plants.

2nd Quarter:

As the frost damage showed, more care is needed for the nursery. We have sprayed the nursery twice with ‘Topaz’ and ‘Ridomil’ to protect the grapes against oidium and mildew. Our workers are now engaged in clearing weeds from the vineyard. Though we have no grapes this year, we are completing all required tasks to ensure the success of next year’s crop.

3rd Quarter:

During these months we sprayed the nursery with ‘Karate’, ‘Ridomil’, and ‘Bordeaux’ solutions. The vines have been cross-fertilized using sulfur. We have also hoed our fields and removed invading weeds.

3. Accomplished tasks

ATG-NK has completed the installation of the drip irrigation system on 1.4 ha of land, costing 1,800 (USD). This new system will improve our crop yields. In June, we finished the asphaltting under 400-m² of the shelter, costing 1,800,000 (AMD). This has been of great help for our workers, improving their on-the-job conditions.

Appendix: Tables & Charts

ATGF:

1. ATGF 2003/04 season winter wheat and barley plantation yields (*see report*)

#	Variety	Area (in ha)		Yield tons	Average yield, t/ha	Generation	Notes
		planted	harvested				
1	Stephens	9.0	9.0	20.15	2.20	Reg.	Damaged by hail
2	Eltan	2.9	2.9	5.1	1.76	Reg.	“-“
3	Meridian	2.97	2.97	7.7	2.59	Reg.	“-“
4	Weston	3.1	3.1	6.65	2.15	Cert.	“-“
5	Boundary	1.0	1.0	1.75	1.75	Il gen.	“-“
6	Stephens	1.5	1.5	1.95	1.30	Cert.	“-“
7	SN64	0.5	0.5	.855	1.71	Cert.	“-“
	Total Wheat	20.97	20.97	44.15	2.1	-	
1	Barley “Steptoe”	10.2	5.0	2.0	0.4	Cert.	Planted in saline land
2	Barley “Steptoe”	0.7	0.7	2.95	4.2	Il gen.	
	Total Barley	10.9	5.7	4.95	0.9		

2. ATGF 2003/04 season breeder seed yields (*see report*)

#	Variety	Year of breeding	Area planted/ harvested, ha	Bunker yield, tons	Average yield, t/ha	Notes
1	Stephens	1	.05	0.155	3.1	Low rate of planting due to rains
2	ECVD	1	0.1	0.370	3.7	
3	Medsen	1	0.1	0.420	4.2	
4	Meridian	1	0.05	0.240	4.8	
5	W-301	1	0.1	0.380	3.8	
6	Dagdaz	1	0.1	0.470	4.7	
7	SN64	1	0.1	0.540	5.4	
8	Weston	1	0.13	0.290	2.2	
	Total wheat (1st year)		0.73	2.865	3.9	
1	Weston	3	0.3	1.00	3.3	
2	ECVD*	3	0.5	1.40	2.8	Rejected as defective
3	Meridian	3	0.35	1.34	3.8	
4	W-301	3	0.192	0.18	0.94	Damaged by hail
5	Eltan	3	0.29	0.33	1.14	“-“

* The field had unacceptable level of other varieties due to warehouse or field mistake

6	Stephens	3	0.29	0.30	1.03	Damaged by hail
7	SN64	3	0.29	0.43	1.48	“-“
	Total wheat (3 rd year)		2.212	4.98	2.25	
1	Barley “Kold”	3	1.5/08	0.415	0.52	
2	Barley “Bancroft”	3	0.1/0.08	0.125	1.6	
	Total barley (3 rd year)		1.6/0.88	0.54	0.6	

3. ATGF Capital Investment 2004 (*see report*)

#	Description	Date	Amount (USD)
1	“Niva” car	3/2/2004	6 450.00
2	3-phase welding equipment	3/15/2004	99.03
3	PPY – 50A type plow for deep plowing	3/24/2004	622.10
4	Mobile diesel-generator welding machine	4/1/2004	624.42
5	230 hp K700 tractor	4/26/2004	8 151.18
6	Cellular phone “Samsung A800”	5/4/2004	181.74
7	7 blade plow with pneumatic control for K700 tractor	5/4/2004	1 700.36
8	Comb binding machine SD 280	6/23/2004	138.38
9	MTZ 72 tractor engine for Sampo combine	6/23/2004	600.00
10	2.1 ha land in Talvorik village	7/29/2004	1 383.34
		Total	19 950.55

4. Wheat and Barley Plans for Next Season (*see report*)

Variety	# of ha.
Umanka	10
Eltan	3
Meridian	3
Stephens	3
Weston	3
Krasnodaskaya 99	2
Boundary	1

Breeder fields will include (1st, 2nd and 4th year fields):

Variety	# of ha.
SN 64	2.33
Stephens	2.05
Meridian	1.8
W301	1.2
Dagdas	.51
ECVD	.25
Bezostaya	.03
Boundary	.02

Total wheat	8.19
Kold	1.03
Bancroft	.75
Steptoe	.03
Total barley	1.81

ATG-SPSA:

1. Locations of the Test-Plots already set up by ATG-SPSA (see report)

#	Region Շրջանը	#	Region Շրջանը	#	Region Շրջանը	#	Region Շրջանը
1	Gyumri	6	Taoush	11	Tashir	16	
2	Amasia	7	Sisian	12	Stepanavan	17	
3	Megrashen	8	Goris	13	Nor Kianq	18	
4	Hrazdan	9	Vardenis	14		19	
5	Arzakan	10	Martouni	15		20	

2. Wheat and Barley Varieties Represented in the Test-Plots (see report)

#	Variety Սորսը	#	Variety Սորսը	#	Variety Սորսը	#	Variety Սորսը	#	Variety Սորսը
1	Findley	7	Stephens	13	Eritrosperum	19	Promontory	25	Kold
2	Dagdas	8	SN 64	14	Ptzniska	20	Boundary	26	Bancroft
3	Weston	9	Umanka	15	Paradise	21	Oklahoma		
4	Bezostaya 1	10	Meridian	16	Leninakan 5	22	Idaho		
5	W - 301	11	Don Bezostaya	17	ArmCim	23	Tan		
6	Baltazar	12	Eltan	18	ECVD	24	Steptoe		

3. Farmers Coöperating with ATG-SPSA (see report)

#	Farmer Ֆերմեր	Marz Մարզ	#	Farmer Ֆերմեր	Marz Մարզ	#	Farmer Ֆերմեր	Marz Մարզ
1	Qotanjyan, Serjik	Shirak	14	Pogosyan, Gagik	Shirak	27	Araqelyan, Armen	Ararat Valley
2	Sargsyan, Seryan	Shirak	15	Minasyan, Hovhanes	Shirak	28	Shahinyan, Mesrop	Ararat Valley
3	Mkrtchyan, Norair	Shirak	16	Avetisyan, Sevak	Syunik	29	Nersisyan, Babken	Ararat Valley
4	Aivazyan, Albert	Shirak	17	Davtyan, Samvel	Syunik	30	Andranyan, Andoush	Ararat Valley
5	Araqelyan, Haroutyun	Shirak	18	Sardaryan, Yourik	Syunik	31	Markosyan, Vardan	Ararat Valley
6	Barseghyan, Vahan	Shirak	19	Aroustamyan, Rafik	Syunik	32	Khachatryan, Volodya	Ararat Valley
7	Suqiasyan, Ara	Shirak	20	Tangyan, Araik	Syunik	33	Mirzakhanyan, Arshak	Ararat Valley
8	Ghrzoyan, Matevos	Shirak	21	Ivanyan, Sevada	Syunik	34	Zalinyan, Ara	Lori

9	Petrosyan, Hunan	Shirak	22	Manoukyan, Virab	Ararat Valley	35	Kirakosyan, Stepan	Lori
10	Sargsyan, Razmik	Shirak	23	Ghazaryan, Vardan	Ararat Valley	36	Sargsyan, Norik	Kotaik
11	Hakobyan, Artyom	Shirak	24	Mouradyan, Sargis	Ararat Valley	37	Martirosyan, Vardges	Kotaik
12	Qerobyan, Tigran	Shirak	25	Minasyan, Serozha	Ararat Valley	38	Hakobyan, Tatul	Kotaik
13	Hakobyan, Tomik	Shirak	26	Khalatyan, Khalat	Ararat Valley	39		

* Farmers in *bold italics* no longer get loans from ATG-SPSA

4. Approved Seed for Marketing – 2004 (*see report*)

Varieties (in tons) / Սորսը							
Farmers Ֆերմեր	Region Մարզ	Bezostaya 1	Findley	Stephens	Dadash	SN 64	Total Seed / Ընդհանուրը
Petrosyan, Hunan	Shirak	30					30
Araqelyan, Armen	Ararat		17	7			24
Khachatryan, Volodya	Echmiatsin			16			16
Ivanyan, Sevada	Sisian	40			50	20	110
Total 1st Gen. Seed (Tons) / Ընդհանուրը		70	17	23	50	20	180
Area covered (Ha) / Ցանվող տարածքը		233.3	113.3	153.3	250.0	100	850.0

5. Seed Orders (as of 9/1/2004) (*see report*)

Village, Marz / Գյուղ, Մարզ	Bezo- staya 1	# of Families	Findley	# of Families	Stephens	# of Families	Da- dash	# of Families	Total Seed / Ընդհանուրը
Khachaghbyur, Gegharqounik							20	10	
Sevan, Gegharqounik	4								
Tsovinar, Gegharqounik							5		
Vardenik, Gegharqounik							5		
Arzakan, Kotayk	5	17							
Karenis – Nurnus, Kotayk	5								
Qakhsi, Kotayk									
Zoravan, Kotayk	6		4						
Garni, Kotayk							0.4		
Khor Virap, Ararat					3.7	12			
Masis, Ararat					1.2	4			
Dalarik, Ararat					3.75				
Shiarzlu, Ararat					0.9				
Paravaqar, Taoush	4	25							
Aigepar, Taoush	6								
Total Seed Available (Tons) / Ընդհանուրը	30	42	4	0	9.55	16	30.4	10	131.95
Area covered (Ha) / Ցանվող տարածքը	100.00		13.33		31.83		101.33		246.50

* Completed sales are in *bold italics*

ATG-NK:**1. 2004 Vine plant realization (1st Quarter) (see report)**

	Customer name	Place to be planted	Variety		Amount	
			Khndoghny	Areni	Received	Receivable
1	Edik Avetissian	Togh, Hadrout	1500	1000	750 000	
2	Arthur Zargarian	Berdashen, Martouni	665		199 500	
3	Karen Sevumian	Her-Her, Martouni	100		30 000	
4	Baghdasar Ghulian	Her-Her, Martouni	25		7 500	
5	Arkadia Khachatryan	Khramort, Askeran	8 300		1 890 000	600 000
6	“Agroservice” CJSC	Stepanakert	20		6 000	
7	Boris Engibarjan	Stepanakert	15		4 500	
8	Souren Israelian	Berdashen, Martouni	110		33 000	
9	Manvel Hakobjanian	Ivanyan, Askeran	5 290	490	1 734 000	
10	Ararat Khachatryan	Noragyough, Askeran	5 300		600 000	990 000
11	“LOOM” Ltd.	Mardakert	5 000	1 600	1 020 000	960 000
13	Samvel Hakobian	Askeran	25 500	500		8 100 000
	Total		51 825	4 590	6 274 500	10 650 000

2. Workers in Khramort Village (see report)

Month		Grape	Nursery	Wheat	Total	
		I field	II field	III, IV, & V fields	All fields	
		Workday	Workday	Workday	People	Workday
1	January	7	747	152	52	906
2	February	101	362	197	50	660
3	March	136	827	107	50	1 070
	1Q Total	244	1 936	456		2 636
4	April	122	617	85	45	824
5	May	161	560	120	47	841
6	June	144	505	154	45	803
	2Q Total	427	1 682	359		2 468
1	July	118	423	276	45	817
2	August	---	229	317	43	546
	3Q Total	118	652	593		1 363
	2004 Total	789	4 270	1 408		6 467

3. Salaries & Wages (see report)

		Salaries, wages		Social Security 13%	
Khramort	Ex. rate	AMD	USD(\$=585)	AMD	USD(\$=580)
January	565	1 075 445	1 903	139 808	247
February	565	868 630	1 537	112 922	200
March	561	1 346 300	2 400	175 019	312
1Q Subtotal		3 290 375	5 841	427 749	759
April	553	1 064 750	1 925	138 418	250
May	549	1 114 130	2 030	144 837	264
June	538	1 066 650	1 983	138 665	258
2Q Subtotal		3 245 530	5 938	421 920	772
July	523	1 283 530	2 385	166.858	310
August	515	785 350	1 534	102 010	175
3Q Subtotal		2 068 880	3 919	268 868	485
2004 Subtotal		8 604 785	15 698	1 118 537	2 016
Office staff					
January	565	438 358	776	56 987	101
February	565	466 628	826	60 662	107
March	561	463 020	825	60 193	107
1Q Subtotal		1 368 006	2 427	177 841	316
April	553	456 460	825	59 340	107
May	549	453 180	825	58 913	107
June	538	444 160	825	57 740	108
2Q Subtotal		1 353 800	2 475	175 993	322
July	523	431 860	826	56 142	107
August	515	425 710	826	55 342	107
3Q Subtotal		857 570	1 652	111 484	214
2004 Subtotal		3 579 376	6 554	465 318	852
1Q Total		4 658 381	8 268	605 590	1 075
2Q Total		4 599 330	8 413	597 913	1 094
3Q Total		2 926 450	5 571	380 352	699
2004 Total		12 184 161	22 252	1 583 855	2 868

4. Financial Report (see report)

		Expenses		Income ATG-NK		Net Gain/Loss	
		AMD	USD	AMD	USD	AMD	USD
<i>1st Quarter</i>							
1	I field	468 642	832			-468 642	-832
2	II field	3 923 218	6 968	*9 695 500	17 236	+5 772 282	+10 268
3	V field	2 114 801	3 756	**322 500	573	-1 792 301	-3 183
4	NK Admin	1 486 286	2 640			-1 486 286	-2 640

	1Q Total	7 992 947	14 196	10 018 000	17 809	+2 025 053	+3 613
	<i>2nd Quarter</i>						
1	I Field	1 956 803	3 577			-1 956 803	-3 577
2	II Field	3 961 389	7 243	9 696 000	17 726	+5 734 611	+10 483
3***	V Field	1 496 052	2 735	105 000	192	-1 391 052	-2 543
5	Asphalting	1 800 000	3 345			-1 800 000	-3 345
	2Q Total	9 214 244	16 900	9 801 000	17 918	+586 756	+1 018
	<i>3rd Quarter</i>						
1	I Field	468 383	903			-468 383	-903
2	II Field	1 627 130	3 135			-1 627 130	-3 135
3	V Field	2 163 280	4 168			-2 163 280	-4 168
4	NK Admin	1 040 010	2 004			-1 040 010	-2 004
	3Q Total	5 298 803	10 210			-5 298 803	-10 210
1	<i>I Field</i>	<i>2 893 828</i>	<i>5 312</i>			<i>-2 893 828</i>	<i>-5 312</i>
2	<i>II Field</i>	<i>9 511 737</i>	<i>17 346</i>	<i>19 391 500</i>	<i>34 962</i>	<i>+9 879 763</i>	<i>+17 616</i>
3	<i>V Field</i>	<i>5 774 133</i>	<i>10 659</i>	<i>427 500</i>	<i>765</i>	<i>-5 346 633</i>	<i>-9 894</i>
4	<i>NK Admin</i>	<i>2 526 296</i>	<i>4 644</i>			<i>-2 526 296</i>	<i>-4 644</i>
5	<i>Asphalting</i>	<i>1 800 000</i>	<i>3 345</i>			<i>-1 800 000</i>	<i>-3 345</i>
	Total	22 505 994	41 306	19 819 000	35 727	-2 686 994	-5 579

* Including pay-off debts for the vine plants sold in 2003 and advance payments

** Pay-off debts for wheat seed sold in 2003

*** Back payment for the wheat purchased in 2003

5. SMP – Wheat Yields (3rd Quarter) (see report)

		Ha	Threshed /kg/	Kg/ha
1	Bezostaya	38	68 926	18.1
2	Stephens /Elite/	1	4 050	40.5
3	Stephens /II generation/	9	15 980	17.8
	Total	48	88 956	18.5