

USDA Marketing Assistance Project	Date: June 2003
Product Development Brief	



**Armenia
Product Brief
Condiment Marketing
Capers (*Capparis spinosa*)
2003**

Prepared by

Jeffrey E. Engels
Marketing Manager
USDA-MAP
74 Teryan Street
Yerevan, 50079, Armenia

Report Highlights:

The global demand and consumption of capers as a condiment is growing as food tastes expand, unique specialized products are sought out, and Mediterranean-flavored foods spread internationally. Armenia has just begun to wild-harvest capers and bottle them for international markets—Russia, France, and the United States. Given Armenia’s high quality production, low cost labor, and marginal wholesale price, this delicacy from the Caucasus is well positioned for strong export sales.

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1.0 Introduction

For agribusiness companies, in Armenia or elsewhere, the introduction of new products is critical to achieving long-term goals of profitability and growth. In the U.S., marketing managers estimate 40% of a company's profit in the next five years will come from products not currently on the market. In addition, 25% of retail food sales in the U.S. reportedly consist of products introduced within the last five years. In Armenia, a country still struggling with a Soviet legacy left behind a decade ago, the situation is compounded by an urgent need to move toward more import substitution and export promotion in areas where Armenia has or can build significant and sustainable comparative advantages. For the effective development of processing, marketing, and agribusiness is the key to future agricultural development in Armenia, which today contributes to 40% of GDP.

The Marketing Assistance Project (MAP) is an agribusiness development project in Armenia managed by the U.S. Department of Agriculture (USDA). Established in 1996, MAP assists farmers and agribusinesses in producing, marketing and exporting food and beverage products to increase incomes, create jobs, and raise the standard of living for rural Armenians. MAP clients include wineries, fruit and vegetable processors, cheese makers, water bottlers, and other agribusinesses. Marketing assistance includes market research, import substitution development, and export marketing.

The key determinant for a new product to be successful is the degree of fit between the new product and consumer needs. For the past two years USDA-MAP has worked with Artashat Cannery OJSC to extend their product line, which exclusively consists of processing tomatoes, cucumbers, apricots, peaches, and apples. Moving beyond basic vegetable and fruit processing, MAP has assisted with market studies for and with an initial trial production of capers, a high-end food condiment that grows well over Armenian's rugged terrain and is wild-harvested. The global demand and consumption of capers buds is growing as food tastes expand, unique specialized products are sought out, and Mediterranean-flavored foods spread internationally. This Brief discusses issues relevant to the medium-scale production, packaging, price, distribution, and promotion of Armenian capers for the international market.

2.0 Phase I: Product Definition

2.1 Overview

The caper bush or scrub is a tenacious, spiny vine-like plant that grows up to one to one and half feet tall and three feet wide, with round to ovate, deciduous leaves in semi-arid climates. It grows wild and often abundantly around the Mediterranean region. It is blue-gray in color, is extremely resistant to drought, and its branches hang down and trail along the ground.

In the spring buds form and grow quickly. Flowers measure about two inches in diameter and are white with numerous violet stamens. The caper yields two different types of

fruit, the caper itself and the caperberry. The small buds grow quickly and must be picked very young, as these are viewed as the choicest (and most expensive), for capers are valued in proportion to the smallness of their size.

Harvesting is labor intensive and, for the most part, wild-gathered; in Armenia, all capers are wild-gathered. There exists some cultivation in some countries; notably Spain, which cultivates up to 40% of its total yield, but this is the exception. For the most part, buds are picked between the end of May and the middle of August; though in Armenia, the harvest season runs end April to end August. Once harvested, caper buds are either spread out in the air for a day and then dry salted before pickling in white wine vinegar or they are brought to a collection station and stored in a brine solution of 25-30 days, then sorted by size, graded, dried, and salt is added as a preservative. Further processing occurs by placing them in a large vat for the fermentation (pickling) processing to commence. During fermentation, capers give off cupric acid as a natural by-product, but this ceases after several weeks. Caper flavor develops during the vinegar state of processing.

Capers are graded by shaking them through sieves with different size holes. There is little favor difference between large and small varieties, but smaller grades are preferred over larger ones. The small grades are: Nonpareille, Surfin, and Capucine; followed by Capote, Fine, and Gruesos. Since capers grow faster than they can be picked, only 15% of the total crop falls among the 5-8mm range. 3% of the crop are 5-6mm, and 5% are 7mm.

The ancient Romans used capers to season fish sauces, and they are still used for that today. Capers are also used to flavor pasta sauces, rice, and garnish pizzas and salads. They are especially noted for their use as a garnish over lox and bagels. They combine well with anchovies, tomatoes, lemons, or olives.

2.2 Common Names

English: caper, caperberry, caperbush

French: câprier, câpres, fabagelle, tapana

German: kapper, Kapernstrauch

Italian: cappero, capperone (fruit)

Spanish: alcaparro, caparra, t†pana; alcaparr—n (berries)

Portuguese: alcaparra

Dutch: kappertjes

Russian: kapersy

Hungarian: kapricserje

Swedish: kapris

Finnish: kapris

Estonian: torkav, kappar

Egyptian: lussef

Bengali: kabra

Hindi: kiari, kobra

Punjabi: kaba

Scientific Names

Species: *Capparis spinosa* L. (syn. *Capparis rupestris*)

also *Capparis ovata* Desf.

Family: Capparidaceae (or Capparaceae)

2.3 Culinary Uses

Capers have a sharp piquant flavor and added pungency, a unique aroma, and are prized for their culinary versatility. The flavor of a caper has been described as being similar to that of mustard and black pepper, which they're often served with. In fact, the caper flavor comes from mustard oil: methyl isothiocyanate (released from glucocapparin molecules) arising from crushed plant tissues.

Whole or minced capers are used in sauces, marinades, and for garnishes. Capers contribute to classic Mediterranean flavors, such as olives, arugula, anchovies, and artichokes. They are often used with fish and veal dishes, and with steak tartare, Konigsberg meatballs or Scottish smoked salmon. Upscale Western restaurants often mold or pound capers, garlic, and olives into a paste and serve this as a vegetable dip (tapanade) or include them in a cold marinated vegetable salad with eggplant, onions, tomatoes, vinegar, and anchovies. If the pickled wine or vinegar solution in which they're stored is too tart, capers can be rinsed with or soaked in water before serving. Once opened, a bottle of capers should be stored in the refrigerator. For recipes, see Appendix I.

2.4 Medicinal Uses

It has been reported capers have been used for arteriosclerosis, as diuretics, kidney disinfectants, vermifuges and tonics. Infusions and decoctions from caper root bark have been traditionally used for dropsy, anemia, arthritis and gout. Capers contain large amounts of anti-oxidant bioflavinoid rutin, and caper pulp has been used in cosmetics.

2.5 Origin

Legend has it that capers originated on the Isle of Capri, off the coast of Naples, hence the name caper, but their origin can be traced back over 7500 years to prehistoric seeds found in what is modern day Iraq. Capers are said to be native to the Mediterranean basin, but their range stretches from the Atlantic coasts of the Canary Islands and Morocco to the Black Sea/Crimea and Armenia, and eastward to the Caspian Sea and into Iran.

Capers were well known in ancient times and were mentioned in The Bible and used as a condiment by both the ancient Greeks and Romans. King Solomon referred to them in Ecclesiastes 12:5, 'The tamond tree blossoms, the grasshopper drags himself along, and the caperberrry is ineffective.'

In the first century A.D., the Greek physician Dioscorides wrote a treatise entitled 'The Medicinal Use of Capers.' Cleopatra spiked dishes with capers that she served to Caesar. And the French novelist Alexander Dumas claimed that eating capers in the wintertime was an excellent way to lift the spirits of the elderly and those 'suffering from the winter blues.'

2.6 Ecology and Habit

Dry heat and strong sunlight create the best environment for caper plants. They grow spontaneously in cracks and crevices of rocks and well in nutrient poor gravelly soils. Most plants have extensive root systems that penetrate deeply into the earth. They are small scrubs and are about three feet upright, but they are often spotted growing in a hanging, draped fashion over rocks. A caper's vegetative canopy covers soil surfaces that help conserve soil water reserves. Flowers appear on first year branches.

2.7 Botany and Taxonomy

Division: Anthophyta
Class: Magnoliopsida
SubClass: Dilleniidae
Order: Capparidales
Family: Capparidaceae (or alternatively Capparaceae)
Genus: *Capparis*
Species: *spinosa*

2.8 Sensory Quality

The fragrance is spicy and a bit sour (due to the pickling), the taste slightly tart and pungent.

2.9 Main Constituents

Capers consist predominately of water (approximately 85%). The dry matter contains, besides bitter flavonoid glycosides (rutin), a mustard oil glycoside named glucocapparin (methyl glucosinolate), whereby enzymatical reaction the pungency of capers, methyl isothiocyanate, is derived. Capers resemble several spices of the cabbage family (*e.g.* cress, black and white mustard, wasabi, and horseradish), all of which contain mustard oil glycosides. Of all mustards, methyl isothiocyanate is the most volatile and water and temperature sensitive.

2.10 Crop Status

Capers are collected from wild plants in Spain (Almeria, Grenada and the Balearic Islands), France (Provence), and Italy (especially Sicily and the Aeolian island of Salina and the Mediterranean island of Pantelleria). Capers are also produced in Greece, Algeria, Egypt, Morocco, Tunisia, Cyprus, and coastal areas of the Black Sea, Armenia,

and Iran. No formal cultivation of Armenian capers is presently underway, but instead capers are wild-gathered in various areas throughout the Ararat Valley.

2.11 Production Practices

Capparis spinosa has a long history of being cultivated; capers were noted as being a marketable commodity for the ancient Greeks by Dioscorides and their use was mentioned by the Roman scholar, Pliny the Elder. Over several millennia of use a simple rule for cultivation of the caper bush has developed, that is to give plants a similarly harsh condition as it would naturally grow in. Caper bushes thrive when planted in lean well drained soil in a hot sunny location with little or no water. In fact, a sure way to kill a caper bush is to over water it. Tip growth can be damaged by temperatures in the mid-20's° F, but plants are root hardy to at least 18°F. A simple rule of thumb is that the caper bush can be planted where olive trees grow.

During research for this Brief, no information on cultivation practices could be found for Spain, a country that cultivates 40% of its yield. In Italy, however, growing techniques have been recorded: plants are spaced six to six and one half feet apart (about 2000 plants for every hectare). Full yield is available in 3-4 years. Plants are pruned back in the winter to remove dead wood, and this is critical to continued high production. Three-year-old caper plants yield 1 to 3 kilograms of caper flower buds. Caper plants last 20-30 years.

2.12 Harvesting

Unopened flower buds should be picked on dry days. Harvesting is carried out regularly throughout the growing season. Caper flower buds are collected by hand about every 8 to 12 days, resulting in 9-12 harvest times per season.

2.13 Processing

Capers are preserved either in vinegar or under layers of salt in a jar. Raw capers are bland flavored and need to be cured to achieve their piquant flavor. In Italy, capers are graded on a scale from '7' to '16', which indicates their size in millimeters. Screens are used to sort the various sized capers after being hand picked. Preference depends more on the eye than the palate, as flavor is consistent in all sizes. Small ones are best for hors d'oeuvres and side dishes, but the larger ones are preferred to accompany first and main courses. Each graded size has a different term associated with it:

5-6 mm Nonpareil (extra fancy/gourmet)

7mm Nonpareil

8mm Surfine

9mm Cappucine

10-11mm Capote

12mm Fines

13mm Hor's Calibres (without size)

Capers in vinegar are traditionally packaged in tall narrow glass bottles.

3.0 Phase II: Product Implementation

3.1 Market Trends

Americans and Europeans are consuming every increasing amounts of fresh, frozen, processed, and dried culinary herbs and spices. Factors accounting for increased consumption include interest in new foods and tastes, availability of previously unavailable herbs, advertising and promotion to food services and institutional food chains, and expanding populations demanding foods and flavorings of their homeland. Recognizing the growth in this market, the USDA now lists weekly prices for herbs sold in nineteen major wholesale markets, plus the type of container, package, weight count, and quality of each unit in their National Market News Report (<http://www.ams.usda.gov/marketnews.htm>).

In a report published in 1990 by Purdue University's Center for New Crop and Plant Products addressing culinary herbs and consumer consumption patterns, capers were listed as an herb that demonstrated strong growth potential.

Almost 10 years later *Food Product Design* magazine interviewed Steve Hubbard, the Worldwide Marketing Manager for Griffith Laboratories, a global manufacturer of food ingredients. Mr. Hubbard confirmed, 'The first place you see trends emerge is in sauces and condiments.' The article states: 'Ethnic cuisine is, and has been, an important driving influence in determining flavor trends...Italian cuisine is broadening into the Mediterranean, which includes the Middle East,' and capers was listed as one of several 'potential celebrities of the culinary world'.

3.2 Trade Statistics

Spain produces over 150 cultivated and wild varieties of caper plants, and is the world's major producer with average annual production of more than 3500 metric tons. According to the latest statistics from the U.S. International Trade Administration, in 2002---the latest full year record as of this writing---the United States imported a total of 2,717,969 kgs of capers, prepared or preserved by vinegar or acetic acid, valued at \$9.3 million. Spain represented the largest share of that quantity imported with 1,103,685 kgs, or 40%, which was valued at over \$5 million, or 52% of the total value for this commodity.

Divided between containers holding more than 3.4 kg and containers 3.4 kg or less, Spain dominated with 82% of the market for containers holding 3.4 kg or less, but lost out to Turkey (41%) and Morocco (35.9%) on larger containers. Italy, much noted for its own domestic consumption, represented less than 1% of the capers the U.S. imports. Kyrgyzstan, surprisingly enough, sold \$28,000 worth of capers to the States, proving there is a market for CIS grown product. As Kyrgyzstan can develop a caper industry, so too can Armenia.


**2001.90.1000: CAPERS, PREPARED OR PRESERVED BY
VINEGAR OR ACETIC ACID, IN IMMEDIATE CONTAINERS
HOLDING MORE THAN 3.4 KG**

**U.S. Imports for Consumption: December 2002 and 2002
Year-to-Date,
not Seasonally Adjusted**

(Customs Value, in Thousands of Dollars)
(Units of Quantity: Kilograms)

	December 2002		2002, through December	
	Quantity	Value	Quantity	Value
WORLD TOTAL	171,161	408	1,739,583	5,693
Hungary	0	0	6,455	6
Italy	0	0	1,288	2
Kyrgyzstan	0	0	14,400	28
Morocco	64,648	132	624,735	1,767
Spain	20,113	99	300,185	1,661
Syria	0	0	72,000	228
Turkey	86,400	176	720,520	2,001

Source: U.S. Trade Quick-Reference Tables: December 2002 Imports
<http://www.ita.doc.gov/td/industry/otea/Trade-Detail/Latest-December/Imports/20/200190.html>

 **2001.90.2000: CAPERS, PREPARED OR PRESERVED BY VINEGAR OR ACETIC ACID, IN CONTAINERS HOLDING 3.4 KG OR LESS**

U.S. Imports for Consumption: December 2002 and 2002 Year-to-Date, not Seasonally Adjusted

(Customs Value, in Thousands of Dollars)
(Units of Quantity: Kilograms)

	December 2002		2002, through December	
	Quantity	Value	Quantity	Value
WORLD TOTAL	43,540	165	978,386	4,037
China	0	0	11,000	15
Costa Rica	0	0	2,000	12
Croatia	0	0	3,000	8
France	845	7	7,584	57
Greece	0	0	2,208	18
Guatemala	3,356	6	9,061	16
Italy	4,434	11	20,674	89
Japan	0	0	5,622	5
Lebanon	0	0	1,966	2
Morocco	4,047	15	108,473	381
Pakistan	0	0	658	5
Spain	30,858	126	803,500	3,415
Tunisia	0	0	517	5
Turkey	0	0	2,123	9

Source: U.S. Trade Quick-Reference Tables: December 2002 Imports
<http://www.ita.doc.gov/td/industry/otea/Trade-Detail/Latest-December/Imports/20/200190.html>

3.3 Producer Profile: Artashat Cannery OJSC

Artashat Cannery OJSC
23rd of August Street
Artashat, Ararat Marz, Armenia
Tel: 374.35.26.275
Fax: 374.35.21.308
Email: Artcan@arminco.com
Contact: Mr. Sergo Karapetyan, General Director

The Artashat Cannery was originally established in 1961. Its initial production was small and its focus on fruit and vegetable processing, which remains the same today. It began with processing 50 tons of tomatoes and employed 35 workers. In the 1970's the factory was rebuilt and equipped with new processing machinery, which allowed it to expand its tomato processing capacity to 20,000 tons annual with 400 employees. With the collapse of the Soviet Union, Artashat Cannery experienced a severe production decline but never stopped operating, unlike many large agribusinesses during that period.

In 1991 the factory was privatized and now the General Director is Mr. Sergo Karapetyan. While Artashat Cannery still has the capacity to process 20,000 tons of products, it is only operating at 40% capacity and has a reduced staff of 120 permanent and 100 seasonal workers.

Over the last few years, the cannery has received financial support from the Andre Group, the World Bank, the Lincy Foundation, and the USDA Marketing Assistance Project, which has also provided technical and marketing assistance. Due to collaboration with these international organizations, new production lines have been installed which have enabled Artashat to produce fruit and vegetable concentrates in aseptic bags for export to Russia. In 2001, the company added two new fruit concentrates to its existing three varieties and has since exported each to Russia and Ukraine, and to Georgia, the Baltic States, France, and Japan in 2002. Also in 2001, the enterprise opened a new on-site food-testing lab and became interested in processing several varieties of canned, consumer-ready products for the local and export market. One product that interested Artashat was capers.

3.4 Trial Production

During the spring of 2001, in collaboration with USDA-MAP, the Artashat Cannery launched a pilot project involving capers. Artashat Cannery put out a call for wild-harvested capers and received enough raw material for a trial production of 500 jars. Collectors-harvesters were paid 300 dram (\$0.51) per kilo and capers were packed in 190-gram jars. The jars were imported from the Drujba Packaging Glassware Company in Plovdiv, Bulgaria. These samples were used for international market testing and sent to Russia and France. None of this product was test-marketed in Armenia.

Due to successful feedback from all parties, Artashat Cannery was set to begin caper production in 2002, but had to postpone this due to delays by glass jar manufacturing companies that responded too late in the season to bottle the product. Still, costs were calculated for the production of 60,000 units of 100 gr. jars of capers as follows:

#	Cost Break-Down	Cost For Producing 1 Jar (in Drams)	Cost for 60,000 Jars (in Drams)
1	Raw materials/other ingredients	21.50 ADR	1,290,000 ADR
2	Jars & Lids	32.00 ADR	1,920,000 ADR
3	Packaging Materials	4.0 ADR	240,000 ADR
4	Fuel & Energy	0.80 ADR	49,000 ADR
5	Salary/Payroll	2.50 ADR	150,000 ADR
6	Taxes/Social "Allocations"	0.50 ADR	30,000 ADR
7	Depreciation	0.60 ADR	36,000 ADR
8	Administration	2.10 ADR	126,000 ADR
Total	585 ADR=\$1.00	64.00 ADR (0.109 USD)	3,841,000 ADR (6,565.81 USD)

Source: Author

In the spring of 2003, caper production was ready again, this time with secured pricing from a Moldavian jar manufacturing company and Saint-Gobain, an international jar manufacturer.

This year (2003), caper production will involve no less than 40 villages in Ararat, centering around Vedi, Goravan, and Dashtakar villages. Some 200 collector-harvesters will bring 5-6 tons of raw product. Next year (2004), Artashat Cannery is considering contracting farmers to cultivate a trial of four hectares. Meanwhile, understanding there is a market for capers, collector-harvesters have raised the price of capers to 600 drams/kilo. The Artashat Cannery will devote 5-6 new people on their production line to work on processing this product this year, and this number will increase next year.

4.0 Phase III: Product Introduction

A product's life cycle in the market can be divided into five phases:

1. Introduction: low sales, high marketing expense.
2. Increasing growth: new consumers and repeat-buyers, promotional costs still high.
3. Declining growth: market for product begins to saturate.
4. Maturity: stable period in sales, stagnating market.
5. Decline: competing products adversely affect sales.

The length of each phase depends upon the product. An agro-processor will have at any one time different products in different phases of their life cycles. To maintain overall

profitability, it is necessary an enterprise regularly initiate new life cycles by introducing new products.

For forty-two years the Artashat Cannery has maintained a strong position in the fruit and vegetable processing sector, but their range of products has changed little: Artashat, today, still primarily depends on processing tomatoes (whole; in paste form; as ketchup, and with pickled cucumbers); stewing apricots, and providing apricot, peach, plum, and sea buckthorn concentrate. The introduction of capers to their food product line is a strong and needed move toward diversity, reaching out to new international markets, and adapting to new demands from customers. At first, sales will grow slowly and there will need to be strong marketing promotion efforts to establish Armenian capers on grocery store shelves and in the minds of buyers more accustomed to purchasing product from Italy, Morocco, or Spain.

4.1 Positioning

Position denotes how consumers perceive a brand in relation to other like products. Consumer research tells us buyers hold certain beliefs about the characteristics and potential benefits of a product through an admixture of marketing communications—such as advertising, promotions, packaging, price, merchandising, in addition to word-of-mouth, and consumer usage. The comparison and contrast of these products give a perception of the marketplace and allows consumers to evaluate brands. Shoppers look for a combination of sensory, rational, and emotional benefits. Sensory benefits refer to the taste, appearance, texture, aroma, and other organoleptic elements. For capers, all these would apply. Rational benefits are perceived as those that allude to what the product does for the customer---provide nutritional value. And emotional benefits refer to the “image” of the product, such as the consumption of capers as a component to an overall healthy Mediterranean diet or gourmet lifestyle.

Artashat Cannery’s capers should be positioned as upscale and primarily seen in the gourmet section of a retail shelf—thus positioning them as a choice for special recipes. They should be included next to like condiments—such as marinated olives and pearl onions. Capers should share shelf space with bottles of extra virgin olive oil and special culinary oils (grape seed, walnut, hazelnut, and truffle–infused oils), unique mustards, gherkins (baby pickles) in vinegar, baby corn or artichokes. They should be promoted as a distinctive addition to the already growing caper market, a delicacy from the Caucasus, an exotic offering beyond the Black Sea to contribute to a health-conscious lifestyle, full of good fats, minerals, and anti-oxidants.

4.1.0 Packaging

Proper packaging is essential to not only contain but also convey the overall image of the product. Thin, cylindrical jars with twist-off metal tight-seal lids are usually used to package capers measured at 100 grs. Greater amounts are offered in larger, round jars. For still larger volumes, plastic tapered transparent containers have been used, as well as

more recently non-resealable, thermowelded plastic bags for the HRI (hotel, restaurant, and institutional) sector. Illustrations of each can be found in Appendix II.

For Artashat Cannery's production, 60,000 units of 314ml/10.6 oz. size round bottles will be ordered from a Moldovian jar company, and they are considering an additional 56,850 units of 100 gr. jars from an Italian jar company, pending financial assistance from the USDA Marketing Assistance Project.

After the capers have been soaked in water in large drums for 15 days, with water changed several times a day, they will be cleaned and filled in jars with a water, salt, vinegar, and citric acid solution.

4.1.1 Pricing

In 2002, a marketing survey was undertaken in the United States to determine the country of origin, bottle size, and pricing of capers sold on retail grocery store shelves. Both coasts were targeted, concentrating in metropolitan areas: the San Francisco Bay Area and the Washington, D.C. Metropolitan area. On the West Coast, three stores were surveyed—Safeway, R.J.'s, and Woodland Market. On the East Coast one store was surveyed—Whole Foods.

On the West Coast, capers predominately were bottled in sizes ranging between 3.0-4.0 oz costing \$1.70-\$4.69, averaging \$2.89. Larger sized bottles came in at: 16oz for \$7.39 and 28 oz for \$10.70.

On the East Coast, capers predominately were bottled in sizes ranging between 3.0-3.5 oz costing \$2.99-\$3.29, averaging \$3.14. Larger sized bottles came in at: 8 oz for \$4.99 and 16 oz for \$6.99.

A pricing matrix listing all details is available in Appendix III.

With Artashat's 2002 pricing calculation of producing 60,000 bottles of capers at \$0.109/per100 gr., this cost is only 3.7% of the retail price this product is selling for on the West Coast and 3.4% of the retail price this product is selling for on the East Coast. With the increased price for capers in 2003 rising to 600 drams/kilo, this only increases the price per 100 gr. jar by \$0.07, an inconsequential amount. Hence, there is *significant* profit to be made on caper production even after factoring in inland freight, ocean freight, customs clearance, and U.S. distribution and mark-up.

4.1.2 Place

To develop an affective marketing plan for capers, Artashat Cannery will need to define their distribution goals and clearly identify the type of stores appropriate for their brand. Working with importers, brokers, and distributors, the company will need to define clear sales objectives for their plan. These objectives should specify the number and type of stores from which they seek placement and penetration. It is not necessary that a

distributor seek out only high-traffic stores with the largest amount of customers, but those that cater to experimentative or discriminating consumers. A distributor should also include in a marketing plan sales to restaurants, hotels, and institutions, *etc.* Market conditions are always in flux, and so too consumer habits: Artashat needs to evaluate the fit between its product's attributes and market preferences.

4.2 Target Markets

Artashat Cannery is set on launching capers into two markets—Russia and France, based on positive feedback received from 2001 shipments. While both regions possess a large Diaspora community, this factor will not play a significant role in the success of this product. Armenians are not particularly noted for incorporating the condiment in their national dishes, as are Europeans (*i.e.* Italians), and to a lesser extend North Americans. But what these two markets have in common are ethnically diverse populations in large metropolitan cities. In both there is a growing awareness and consumption of foreign foods, an increase in an international community and ethnic restaurants, and grocery stores with a penchant to expand offerings, theretofore unavailable.

Another market that possesses the same criteria is Glendale, California, with the potential to be far more profitable. This is the third largest city in Los Angeles County and spans over 30 square miles. There are numerous Armenian trading companies in the Glendale region already importing Kilikia beer, Jermuk mineral water, Tamara ice cream, Sardarapat processed tomato products and grape leaves, Lori cheese, *etc.*, and Armenians willing to do business with their homeland.

The State of California is noted for its world-class wines, food events, nouveau and fusion cuisine, and consumers who seek a healthy lifestyle. Capers are well known to the California market and with 100 gr. jars retailing for \$2.89 vs. production costs of \$0.17, there is a good opportunity to sell capers at a higher price per bottle than the \$1.00/100 gr. the Arashat Cannery has negotiated with Russia and France.

One notable international trader and foreign food distributor is Raffi Kradjian, Exec. Vice-President of Kradjian Importing Co., Inc, 5018 San Fernando Road, Glendale, California, 91204, USA, Phone: 818.502.1313; Fax: 818.502.0546, email: KRAIMPCO@aol.com. Kradjian Importing is a major importer and wholesale distributor of European, Middle Eastern, and Armenia foods. This year he will import Armenian tomato paste, grape leaves, and Lori cheese, and has expressed an interest in importing Armenian capers.

4.3 Market Access

The key factors in the importation of capers for the U.S. market are:

- Compliance with U.S. Food and Drug Administration (FDA) purity, identify, manufacturing, and other standards;
- Compliance with FDA entry notification and procedures.

Imported products regulated by FDA are subject to FDA port of entry inspection and Form FD701 will need to be submitted. For customs classification, capers fall under the Harmonized Tariff Schedule of the United States (HTSUS) #2001. Duty for capers is 8%. This product is not subject to any quota.

Labeling of food products into the U.S. must include 1) The name, street address, city, state, and zip code of the distributor. If the food is not manufactured by the person or company whose name appears on the label, the name must be qualified by “manufactured for,” “distributed by” or a similar expression; 2) an accurate statement of the amount of food in the package; 3) the common name of the food must appear on the display panel, as well as the form of the product (*i.e.* “chopped,” “whole”); and nutritional information.

The nutritional information required is described in 21 CFR Part 101 and is extremely complex and specific. The minimum requirements include: 1) serving size and number of servings per package; 2) total calories and calories from fat per serving; 3) total fat and saturated fat (in grams), total cholesterol and sodium (in milligrams), total carbohydrates, dietary fiber, sugars, and protein in grams per serving; 4) percentage of all the constituents listed in the preceding number as a percent of the daily values based on a recommended base 2,000 calorie daily diet; 5) U.S. Recommended Daily Allowances (U.S. RDA) in percentages of vitamins/minerals per serving; and 6) a display of the daily values with the recommended values in grams/milligrams for fat, saturated fat, cholesterol, sodium, carbohydrates, and dietary fiber.

Further, regulations require that foods be produced in sanitary facilities, and “be free of filth (*e.g.* rodent hairs and excreta, insect parts and excreta, parasitic worms)”. If a shipment is found contaminated at the port of entry, it will be detained, if not destroyed. Interestingly enough, there are no specific regulated tolerances for filth in food per se, but a Hygiene (Sanitary) Certificate should accompany the shipment from Armenia.

Also, U.S. customs laws require each imported article produced abroad be marked “in a conspicuous place as legibly, indelibly, and permanently as the nature of the article permits, with the English name of the country of origin, to indicate the ultimate purchaser in the U.S. the name of the country in which the article was produced.”

Finally, the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, as administered by the FDA, requires all domestic and foreign facilities that manufacture, process, pack, or hold food for consumption in the U.S. register with the FDA by 12 December 2003. Under this new regulation, the FDA additionally must receive prior notice of food imported into the United States. The Secretary of the Department of Health and Human Services will also establish and maintain records for these regulations, and has the authority to order the detention of food upon credible evidence of a threat to health.

4.4 Channels of Distribution

To be successful in the California market, Artashat Cannery will need to choose the right partner to work with: a strong, reliable, enthusiastic and well-connected distributor can make all the difference. Artashat will need someone to launch their capers, exhibit them, advertise them, and promote them. Since at first they will not be able to confidently predict enough business or enough market share to pay for direct sales and marketing, the canning company will need a channel which can manage to generate income for themselves, assist in funding sales and marketing activities, and provide a revenue stream for Artashat in the commercial cycle.

Artashat has two options: it can work with Multiple National Distributors—which are feasible in a large market like the U.S. where regions or product sectors can be carved up for optimum coverage but in segments remain large enough to retain individual dealer attention, or Artashat can work with a National Distributor with Regional Sub-Distributors—in this situation a single national distributor takes care of all importations, national marketing and promotion, sales and support, and relies on various sub-distributors for regional access, specialty access, retail sales, *etc.* Distributors who want to be a Sole National Exclusive Distributor of capers will no doubt approach the cannery, but this should be avoided, since it will be difficult for any distributor to cover the entire U.S. market with this condiment.

4.5 Marketing Strategy

The Artashat Cannery understands the goal of business is to create and keep customers. Its marketing strategy must reflect this goal as it builds its reputation in being a premier provider of Armenian capers outside its borders. All strategies must work toward supporting these values and realizing this goal.

4.5.0 Product Promotion

Promotion is essential in positioning capers in the mind of the customer. The best promotion results from the most creative thinking: sample tastings in stores are always popular. Capers could be served on salmon wedges or sample salads. Shelf-talkers, product flyers, and Mediterranean recipes would all help promote capers.

Consumer promotions, such as coupons, cents-off deals, money back and refund offers, and premiums can all help build awareness of Armenian capers. Coupons can be distributed through FSIs (free standing inserts in food magazines); in print advertising; via an in-store coupon kiosk, and so on.

4.5.1 Brochure

A marketing campaign for Armenian capers should include an economical and attractive brochure. This can be left with retailers, store managers, and restaurant owners. It

should reinforce Artashat's image, educate customers, and build brand awareness. This should contain high quality graphics and stress the uniqueness of Armenian capers.

4.5.2 Press Release

Press releases are excellent ways of introducing a new product into the market, establishing its positioning and key features. Usually a customer quote is included, as well as the producer's (Artashat Cannery's) mission statement and contact information, and the U.S. importer's address and phone number. This should be distributed to the media, food and beverage publications, radio and television stations which feature cooking and food shows.

4.5.3 Advertising

When a new product is launched, advertising is an effective tool to create awareness and communicate its benefits. Advertisements can capture a customer's interest up front, differentiate it from its competitors, and demonstrate its benefits. Advertising should have three goals: relevance, originality, and impact. Research reveals the average American is exposed to up to 500,000 advertising messages in a year for over 100,000 new products. That provides a challenge to create a memorable message that educates the public and entices them to purchase the new product.

Condiments, including capers, are advertised in a range of food publications. Most are high-end magazines targeted to cooks and food aficionados: *Gourmet*; *Food & Wine*; *Bon Appetite*; *California Wine & Food*; *Cusine Italiana*. Any of these should be considered to introduce consumers to Armenian capers.

4.5.4 Trade Fairs

The National Association for the Specialty Food Trade is a not-for profit business trade association established in 1952 to foster trade, commerce and interest in the specialty food industry.

The NASFT is an international organization composed of domestic and foreign manufacturers, importers, distributors, brokers, retailers, restaurateurs, caterers and others in the specialty food business. The organization has more than 2100 current member companies throughout the U.S. and overseas.

The NASFT has sponsored well-attended, well-regarded trade shows since 1954. These shows regularly attract 15,000-30,000 attendees from the specialty food, supermarkets, restaurants, and other related businesses.

- The Summer NASFT Fancy Food Shows[®] are held annually on the East Coast.
- The Winter NASFT Fancy Food Shows[®] are held annually on the West Coast.
- The Spring NASFT Fancy Food Show[®] is held at McCormick Place in Chicago.

Any of these shows would be appropriate to premiere Armenian capers to food professionals and should be considered by any food importer/distributor. Additional information is available at: <http://www.nasft.com>

4.5.5 Internet

E-commerce via the Internet continues to grow. Numerous specialty food enterprises regularly market capers through this medium:

The Boscoli Family of Foods (<http://www.boscoli.com/index.html>);

Star Fine Foods (<http://www.starfinefoods.com/index.html>);

Capers Italian South srl (<http://www.netnet.it/capersud/icsprod.htm>);

Mediterranean Organic (<http://mediterraneanorganic.com/capers.html>);

Igourmet (<http://www.igourmet.com>)

Some of the advantages of having a website include:

- ❑ Available 24 hours, 7 days a week for your customers;
- ❑ Cost effective form of communication;
- ❑ Give customers access to information they require;
- ❑ Web advertising creates opportunities for an instant response via direct links and email;
- ❑ Helps generate immediate orders;
- ❑ Keeps consumers up-to-date;
- ❑ Audience is kept interested with fresh interactive messages.

Like all e-business sites, one marketing capers should have a consistent basic color scheme throughout, a clear navigation process; short, fast loading pages; a logo on each page; and credible, original content.

5.0 Conclusion

Effective development of processing, marketing, and agribusiness is the key to future agriculture sector development in Armenia. Increasing the competitiveness of domestically produced agricultural products and their share on the international market, leveraging specialty products, low cost labor and production, will bring jobs to Armenian farmers and agribusinesses. High-end, wild-harvested, niche products like capers give Armenia a comparative advantage. With food tastes expanding, consumers seeking ever more healthy-conscious food choices, and the popularity of a Mediterranean diet, Armenian capers have the potential to be a strong export commodity.

Appendix I: Recipes

Capers are essential for several Mediterranean cuisines, especially Italian and Cypriot specialties. They are added to tomato and wine sauces and compliment fish and poultry; they are popular with cold meat and frequently used on pizzas. They mix well with other Mediterranean spices---such as basil, oregano, and garlic.

Central and Northern Europe also uses capers, mainly in cold dishes---fish salads, minced meat and savory vegetable salads. Chopped capers are often added to sauces; heating such sauces are avoided, however, since the caper's aroma quickly diminishes with high temperature. Ideally, capers are best added as late as possible to a sauce, when it is luke-warm; they go well with chervil and tarragon.

Spinach with Capers

2 pounds baby spinach
2 tomatoes, chopped
1 garlic clove
3 tablespoons extra-virgin olive oil
Salt and freshly ground black pepper
1/4 teaspoon sugar
1/4 cup capers, rinsed and patted dry
1/2 teaspoon oregano

Rinse the spinach, changing the water several times. Place the wet spinach leaves in a pot and cook for three minutes, or until the leaves are wilted. Squeeze out excess moisture. Grind the tomatoes in a food mill, and eliminate the seeds and skin. Cook the garlic in the extra-virgin olive oil for one minute, and add the tomatoes, salt, pepper, and sugar. Cook for 10 minutes. Stir in the capers, oregano, and spinach; cook for 10 minutes, stirring frequently. Serve hot. Serves 4.

Rice Salad with Fried Caper Dressing

This salad can be served on its own as a vegetarian main course, as a side salad, or as a base for grilled scallop kabobs. The caper infused oil is essential to the dish and the crispy capers a perfect compliment.

3 1/3 cups cold water
1 1/2 cups converted rice
1 teaspoon coarse salt
1 jar (6.5 ounces) Marinated Artichokes, drained
1 cup Cut Baby Corn
1 jar (7.3 ounces) Marinated Hearts of Palm, drained
1 jar (6.5 ounces) Marinated Mushrooms, halved
1 tablespoon grated lemon zest
3 tablespoons lemon juice

3 tablespoons chopped Italian parsley
1/2 teaspoon ground black pepper
1/2 cup Extra-Virgin Olive Oil
1/2 cup Capers, drained

1. Bring the water to a boil in a medium saucepan. Add the rice and salt and cover. Simmer 20 minutes or until rice is cooked and the water is absorbed. Let stand off the heat 5 minutes.

2. Meanwhile, in a large bowl, combine the artichokes, corn, hearts of palm, mushrooms, lemon zest, lemon juice, parsley, and black pepper. When the rice is done, add to the vegetables and toss to mix.

3. In a small, deep-sided saucepan heat the oil until it shimmers (about 350°F.) Add the capers and fry 2 to 3 minutes or until they are crisp. Pour the contents of the pan through a fine sieve over the salad. Mix well and garnish with the capers. Serves 4.

Braised Lamb with Rosemary & Capers

4 ounces of extra-virgin olive oil
2 pounds boneless leg of lamb, cut into cubes
flour for dusting
6 garlic cloves, sliced
6 sage leaves
1 tablespoon fresh rosemary
2 ounces capers
2 ounces anchovy fillets
2 ounces white wine vinegar
1 cup dry red wine
2 egg yolks
1/2 bunch fresh mint, chopped
zest and juice of 2 lemons
salt and freshly ground black pepper to taste

Heat the extra-virgin olive oil in a brazier or straight walled sauté pan until hot and brown the lamb cubes on all sides. Remove the lamb and dust with flour and drain all remaining oil from the pan.

Add the sliced garlic, sage, rosemary, capers, and anchovies. Cook for about two minutes until fragrant. Deglaze with the white wine vinegar and quickly add the red wine to the pan. Cook for 3 to 5 minutes. Add the cooked lamb, cover, and place in a 375° oven for approximately 1 hour.

In a separate bowl, combine the egg yolks, chopped mint, lemon juice and lemon zest until incorporated.

After the lamb is tender, remove the meat from the pan and slowly temper the pan juices into the lemon-egg mixture. Return to the pan and carefully bring the sauce to a boil, being careful not to curdle the sauce. Then add the lamb back to the sauce and thoroughly coat. Serve immediately. Serves 4.

Spinach Penne with Fresh Tuna and Capers

1 shallot, chopped
1 garlic clove, chopped
2/3-cup extra-virgin olive oil
8 ounces cherry tomatoes, halved
2 tablespoons salt-cured capers, salt rinsed off
1 bunch oregano, leaves only, minced
salt and freshly ground black pepper
1 pound skinless fresh tuna, cut into 1/8" cubes
2 pounds spinach penne pasta
1 tablespoon fresh bread crumbs

Cook the shallot and garlic in all but 3 tablespoons of the olive oil in a large pan until soft and aromatic, about 5 minutes over medium heat. Add the cherry tomatoes, capers, oregano, salt, and pepper; raise the heat to high and cook for 3 more minutes, or until the tomatoes start to break down into the sauce. In another skillet, cook the tuna in 2 tbsps of the olive oil until medium-rare, about 2 minutes over medium-high heat; season with salt and pepper. Set aside. Meanwhile, bring 10 quarts of water to a boil; add the penne and salt, and cook until al dente. Drain, and toss with the tomato sauce in the pan. Fold in the tuna and breadcrumbs, and adjust the seasoning if needed. Transfer to a heated serving bowl, drizzle with the remaining olive oil, and serve immediately. Serves 8.

Skate with Olives, Capers and Cherry Tomatoes

4 boneless skate filets, trimmed (4 ounces each)
salt and freshly ground black pepper
2 tablespoons extra-virgin olive oil
1/2 cup pitted Sicilian olives, halved
20 cherry tomatoes, halved
2 tablespoons capers
3 garlic cloves, chopped

Season skate filets with the salt and freshly ground pepper. Heat a sauté' pan with extra-virgin olive oil and sauté the skate on both sides until lightly browned and cooked through. Remove from pan and reserve to the side. In the same pan, add the Sicilian olives, cherry tomatoes, capers and garlic; sauté for 5 minutes to marry the flavors. Pour on top of skate and serve. Serves 4.

Appendix II: Caper Packaging



Appendix III: Caper Retail Survey in the U.S.

Woodland Market: Kentfield, CA, 94915						
Producer	Product Name	Origin	Size	Jar Style	Servings Per Bottle	Price
Le Roi	Le Roi	Morocco	3.5 oz	Cylindrical	2 Tsp.	\$3.79
Crosse	Crosse	Spain	3.5 oz	Cylindrical	2 Tsp.	\$3.69
Gourmet/Blackwell	Non-Pareil	Spain	3.0 oz	Cylindrical	2 Tsp	\$3.49
Roland	Non-Pareil	Morocco	16 oz	Round	N/A	\$7.39
Le Roi	Le Roi	Morocco	28 oz	Round	N/A	\$10.70

R.J's Market: San Francisco, CA, 94100						
Producer	Product Name	Origin	Size	Jar Style	Servings Per Bottle	Price
Star	Star	Morocco	4.0 oz	Cylindrical	21	\$2.59

Safeway: San Anselmo, CA, 94960						
Producer	Product Name	Origin	Size	Jar Style	Servings Per Bottle	Price
Mazetta	Mazetta	Italy	4.0 oz	Cylindrical	21	\$2.00
Mazetta Safeway	Mazetta Safeway	Italy	4.0 oz	Cylindrical	21	\$1.70
Mazetta Select	Mazetta Select	Italy	4.0 oz	Cylindrical	21	\$2.00

Whole Foods: Washington, D.C., 20036						
Producer	Product Name	Origin	Size	Jar Style	Servings Per Bottle	Price
Haddon House	Non-Pareil	Import: Medford NJ	3.0 oz	Cylindrical	4	\$2.99
Haddon House	Non-Pareil Capers	Import: Medford NJ	8 oz	Round	9	\$4.99
Haddon House	Non-Pareil Capers	Import: Medford NJ	16 oz	Round	80	\$6.99
Mediterranean Organic	Non-Pereil Organic	Import: Katonah NY	3.5 oz	Cylindrical	4	\$3.29

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