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IMPROVED APPLE MARKETING ECONOMIC IMPACT STUDY

KOSOVO CLUSTER AND BUSINESS SUPPORT PROJECT



April 16, 2007

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IMPROVED APPLE MARKETING ECONOMIC IMPACT STUDY

THE REPORT MEASURES THE IMPACT ON THE PRICE OF APPLES TAKEN FROM STORAGE WHICH ARE PROPERLY GRADED, SIZED AND PACKED INTO GOOD QUALITY, LOGO-PRINTED, CARDBOARD CARTONS, VERSUS THE PRICE OF APPLES SOLD IN THE TRADITIONAL WAY, WHICH ARE SOLD UNSORTED OUT OF STORAGE IN BANANA BOXES. THE REPORT CONCLUDES THAT THE COMBINATION OF GOOD QUALITY APPLES AND GOOD PACKAGING WILL PROVIDE THE BEST OPPORTUNITY TO OBTAIN THE BEST PRICE.

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PURPOSE OF ASSIGNMENT

The purpose of this activity is to measure the impact on the price of apples taken from storage which are properly graded, sized and packed into good quality, logo-printed, cardboard cartons, versus the price of apples sold in the traditional way, which are sold unsorted out of storage in banana boxes. The consultant will monitor these parameters and the marketing process and report the findings. Assuming the results are favorable and conclusive, they will be widely distributed and publicized to encourage other producers of other crops to do likewise.

BACKGROUND

Farmers in Kosovo are very capable of producing high-quality fruits and vegetables. For the average farmer, however, there is no economic motivation to increase the percentage of production meeting high quality from the currently common low percentages. The farmer is not hearing the ever-increasing shout of the market demanding higher quality with a willingness to pay for it. His ear is not attuned to hear beyond traditional methods of selling his fruits and vegetables; he doesn't believe that higher quality will be compensated by higher prices. This is exemplified most clearly by the condition or presentation of the farmers' products to the market: they are undifferentiated and unsegregated commodities. The most fundamental disconnect between economic expectations on the part of the farmer and the market expectations is that most F&V are not graded, sorted and packed into proper packages. Closing that gap, making that message heard, is the mission of KCBS.

The three associations of apple producers working with the F&V Cluster have begun marketing their apples under a common logo. Local supermarkets and wholesale traders would like to receive apples in consumer size packages weighing five and ten kilograms, which can easily be accommodated in logo-printed cardboard cartons. An STTA working with the Cluster in fall 2005 succeeded in performing a simple test to determine if apples that were properly graded, sorted and packed would command better prices in the market. Anecdotal evidence suggested that income could be increased by 20%. This is encouraging. However, the test was very limited in its scope and unscientific in measurement. A more expansive test of this important hypothesis is needed. One needs to know the following:

- The percentage of Class "A" and (separately) Class "B" apples (quality determined by the buyers) after sorting apples removed from storage
- Prices received for Class "A" and (separately) Class "B" apples in all forms of packaging
- Prices received for unsorted apples in all forms of packaging.
- Imputed labor cost of performing the grading, sizing and packing
- Annual amortized cost of equipment used for grading, sizing and packing
- Cost of all packaging materials encountered

EXECUTIVE SUMMARY

The purpose of this activity was to measure the impact on the price of apples taken from storage which are then properly graded, sized and packed into good quality, logo-printed, cardboard cartons, versus the price of apples sold in the traditional way, which are sold unsorted out of storage in banana boxes.

Another objective of this study was to build on and complement the experience, capacity and achievements already put in place by two apple producer associations: PEMA in Kovrage – Istog and UVB in Blagaje – Peje. Unfortunately, members of Fruti Association in Kravarice – Gjilan, another KCBS client, had already sold their apples at the time of the study.

Apple grading standards are based on uniformity of size, shape, minimum and maximum diameters, colour, maturity, freedom from disease, defects, damage and cleanliness. Grading, appearance, colour, maturity and size of the fruit affect prices and farmer profits.

Nearly all apples produced in Kosovo are sold to the fresh market because prices received are as much as 2 - 3 times higher than for processing. Fruit is typically sold loose/bulk in second hand cardboard cartons, the most common form of packaging being a second hand banana box. Kosovo farmers have limited storage facilities to benefit from off-season prices. Minimal sorting or grading is done by apple farmers, whether at harvest time or post-storage. Imported apples are better graded, packaged and presented and the price of imported apples is thus higher due to better overall appearance.

A round “Kosovo Fruits” logo was adapted from one originally created by EAR’s Marketing Support Project (MSP). Five thousand cardboard cartons designed to hold approximately 10 kg of apples were purchased through a local maker of wooden boxes which is trying to diversify into cardboard cartons by representing a manufacturer located in Durrës, Albania. The cartons procured by KCBS were far superior in strength to those distributed for a similar study by MSP.

Members of the two associations are producing the same varieties of apples using similar production methods and they have similar storage facilities. Based on this pilot research project, however, very different results were obtained from the two associations because they do not follow the same handling practices.

The maximum price advantage using good packaging was 20%, hitting our target. However, a more interesting result was to discover that the practice of post-harvest sorting plus proper storage methods (as conducted at UVB) had more impact on price than using good packaging. The corollary was that failure to practice post-harvest sorting and proper storage was not hidden by using only post-storage sorting plus good packaging (as done at Pema).

A dramatic result from the application of different handling practices is that the percentage of Class “A” apples at UVB is 60 – 65% while at Pema it is 50%, and the average price received at UVB was €0.30 – €0.35, while at Pema it was €0.25. Good packaging is a cost that may boost prices, but only when used in tandem with post-harvest sorting, proper storage and post-storage sorting. We may thus conclude that the combination of good quality apples and good packaging will provide the best opportunity to obtain the best price.

FIELD ACTIVITIES TO ACHIEVE PURPOSES

I. Introduction:

The main objective of this study is to build on and complement the experience, capacity and achievements already put in place by two apple producer associations PEMA in Kovrage – Istog and UVB in Blagaje – Peje.

PEMA is an association of apple producers supported at the beginning by IRC (International Rescue Committee) and Swiss InterCooperation. There are 16 members working in this association, but not all of them are active. Between the active and inactive members they have 35 ha of apples, mainly Ida Red variety, which presents problem for marketing, because it is not very popular, and decreases their opportunity to be more competitive. The quality of apples varies from producer to producer but is generally not exceptional.

UVB is an association of apple producers supported as well at the beginning by IRC and Swiss InterCooperation. Most of the members are Bosniacs. There are 11 members in this association and all are active. In total they have 12 ha of apples, again mainly Ida Red variety, presenting problems as well for marketing. The quality of apples in general is very good.

Nearly all apples are produced for the fresh market. Prices received in the fresh market are up to 2 - 3 times higher than for processing. Fruit is sold loose/bulk, or in second hand cardboard cartons, the most common form of packaging being a second hand banana box. There is minimal sorting or grading at apple farms immediately before apples are sold. There are limited storage facilities to allow farmers to benefit from off-season prices. Imported apples are better graded, packaged and presented and the price of imported apples is higher due to better appearance.

The apple grading standards are based on uniformity of size, shape, minimum and maximum diameters, colour, maturity, freedom from disease, defects, damage and cleanliness. Usually grading, appearance, colour, maturity and size of the fruit affect farmer profit.

Given the close proximity to domestic consumers to urban markets, Kosovo producers should be able to compete successfully with imported apples because the cost of transportation is low.

The success of this exercise was based on the willingness of farmer to do proper grading, sizing and classifying of apples prepared for the retail market or wholesale dealer. The development of consistent packaging material used by apple farmers will have a great impact in future promotion and meeting demand from consumers and wholesale traders.

II. Methodology:

In order to monitor parameters and the marketing process the consultant had to meet first with F & V Specialists in KCBS to better understand the current situation and issues related to working with the two associations. Since one of the associations, Fruti in Kravarice – Gjilan, had already sold their apples, agreement was reached to work only with PEMA and UVB associations.

The consultant met with two related projects, Swiss Project for Horticultural Promotion in Kosovo (SPHPK) and EAR's Marketing Support Project (MSP), to learn more about the history of associations and collect available information about the two associations.

On-site visits were organized by consultant to discuss with members of the associations the pilot demonstration that was to be conducted, monitored and measured. Each visit was one

day. Storage facilities were visited and pictures from different classifications of apples in each class (“A”, “B” and “C”) were taken at both associations.

First we collected information on quantities of apple in storage at both associations and after the discussion with them we decided which members of each association to monitor during this demonstration.

The associations agreed to be monitored during the period of apple classification and the members agreed to follow the rules and standards for classification in order to conduct the envisaged demonstration. Consultant was to be informed every time members will sort apples removed from storage and monitor strictly this process if needed. Random inspections of the apples after packing were to be part of monitoring to determine if quality standards are being maintained when new apple cartons are used. The percentage of Class “A” and (separately) Class “B” apples will be counted and presented in table format. Full collaboration from both associations was required in order to have good data to analyse the effects of sorting and grading on the prices of apples. Usually members of the association are sorting and grading apples one day before the market day in Peja or Istog.

Measuring the impact of proper packaging, sorting and grading required regular visits by consultant to the two main markets in Peja and Istog. Prices were collected for Classes “A” and “B” of apples in different types of packaging.

Prices for unsorted apples were monitored as well to measure the difference in price between sorted and unsorted apples. This measure will help farmers to understand the benefit of apple grading and the effect on price.

Performing post-storage grading, sizing and packing requires time. Consultant will measure twice during this exercise in both associations the time needed to pack cartons and the number of cartons a farmer can pack in period of one hour or per day, performing all required post-storage activities.

Farmers are currently using tables for manual grading, sizing and packing. These tables can be used for a certain period of time after which they need to replace them with better equipment for these activities. Consultant will calculate amortized cost and present it to farmers to let them know when the equipment needs to be replaced.

The farmers paid no cost for the packaging. Because of this we agreed not to include the cost for packaging material.

Digital photos are taken on weekly basis to illustrate both existing and improved methods of marketing apples.

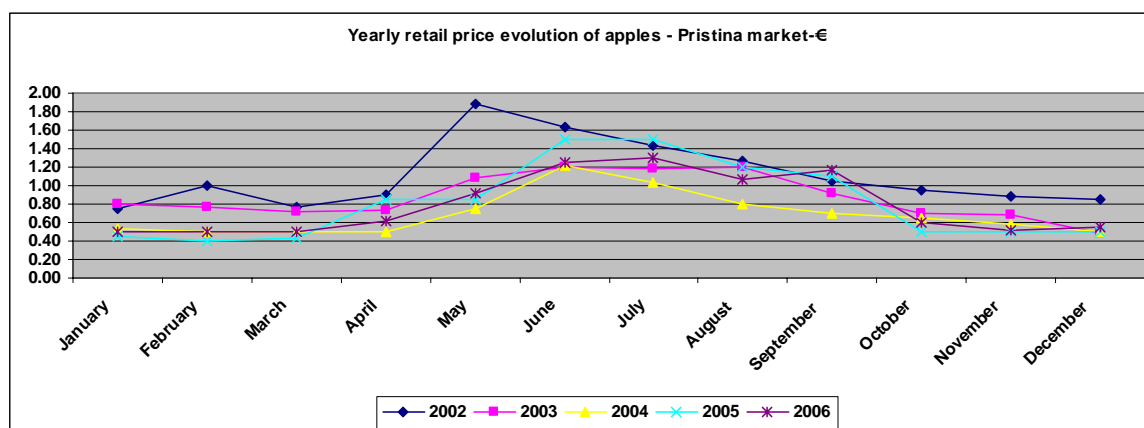
A questionnaire was developed to understand needs of the consumer and consumer observations related to apple production in Peja and Istog region.

III. Historical Data:

We could find year-round historical apple prices only from year 2002 collected by SPHPK on a weekly basis, mainly from wholesale market in Prishtina. More information from other regions’ prices weren’t collected until last year when MSP started to collect them in all regions of Kosovo.

Price trends presented in the table in annex and the graph bellow illustrate trends in retail apple prices from 2002 till the end of 2006.

Retail prices – Pristina markets

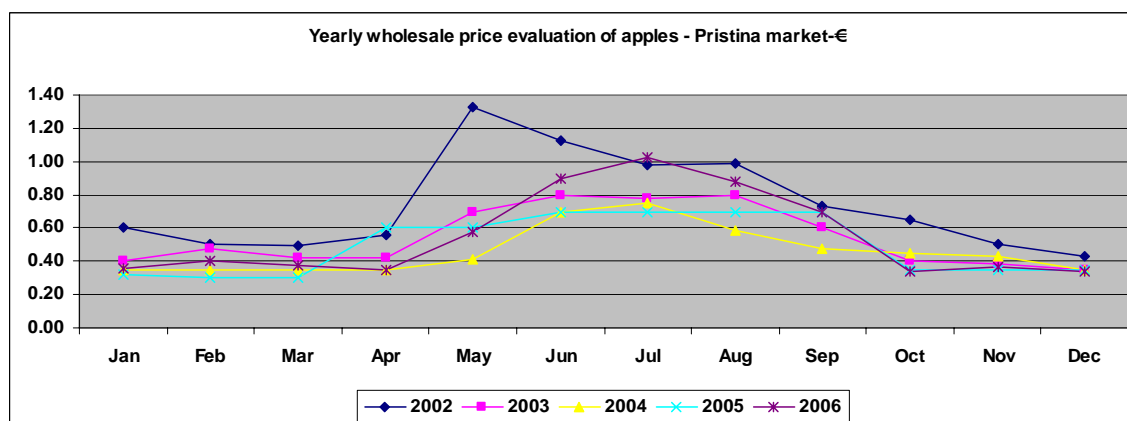


Based on this information we can conclude that apple prices in year 2002, 2003 and 2004 were higher due to the lack of competition from local apple producers who did not properly develop channels of marketing. Years 2005 and 2006 show a trend of price decreases. This is partly because of higher presence of local apples but also a better supply from import and implementation of free trade agreements with countries in the region. Main exporters of apples to Kosovo are Macedonia, Greece, Italy and Argentina.

If we assess development of prices through different months we can conclude that in the last three months of the year, starting from October prices are decreasing substantially due to new harvest supply from local apple producers plus imports. Then, in the first two and a half months of the year prices rise some. In second part of March the price increases more, and later in May, June, July and August we have highest prices due to lack of local apples and the supply is dependent on imported apples. Retail prices are not very important for our study since most of apple producers by members of PEMA and UVB are sold wholesale in banana boxes of 10 kg or 20 kg.

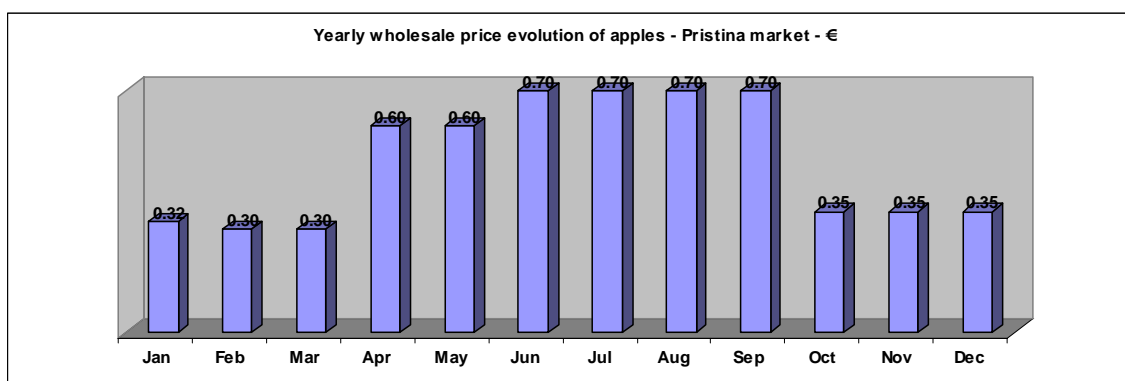
Price monitoring is a very important tool for farmers in order to make better decisions when he should be in the market. Nearly all apple farmers in Kosovo have a problem of lack of proper storage space and usually are present in the market from October till late March, depending on the quality and quantity they have and on weather conditions affecting apple quality in storage.

Wholesale prices – Pristina wholesale market



Source: SPHPK

Yearly wholesale price evolution – Pristina market



Source: SPHPK

The main markets for our local apple producers are Peja, Istog, Pristina, Prizren and supermarkets like ETC and Eskimo.

MSP started to collect data beginning in September 2006, but the data is completely unlike the data from SPHPK. For example, according to MSP, prices in Peja were constant or flat at 0.25 Euro/kg from the beginning of October to the beginning of February. In discussions with farmers we could not confirm that prices stayed at this level from October to February. Farmers said prices varied as one would expect based on the quality of apples and markets in Peja region.

IV. ANALYSIS OF NEW DATA COLLECTED FOR KCBS

Main findings

Farmers from PEMA association are sorting their apples after they are removed from storage and before they are sold. However, these apples are not sorted at harvest, they are stored in cardboard cartons, not wooden boxes, and the storage conditions are not good. As a result, the percentage of Class “A” apples during the study was notably low, about 50%, and Class “B” apples represented 40%, with the remaining 10% Class “C” or spoiled apples.

General situation of apple producers from PEMA association is presented in Appendix 3. Because of the lack of post-harvest sorting and poor storage conditions the members are forced to sell most of their apples between the end of December and the end of February. In general, provision of carton boxes by KCBS helped PEMA farmers mainly to sell their apples to supermarkets and wholesale traders due to better quality of packaging, but the packaging did not improve the low quality of the apples. They still sell many apples to other parties in second hand cartons.

Farmers from UVB association sort their apples during harvest, before putting them into storage. Thus, they have better quality apples even before sorting again after removing them from storage and preparing them for the market. The percentage of Class “A” apples varies from 60 – 65% with different producers, and Class “B” is typically 20 – 25%, with remaining 10% as Class “C” apples.

General situation of apple producers from UVB association is presented in Appendix 3. These farmers’ main market is Peja and the quality of their apples is very high. The farmers are getting consistently higher prices for quality, appearance and have established trust in the Peja market. Provision of the KCBS cartons helped the farmers to reach Supermarkets and wholesale dealers but did not provide for a price increase. Most of the consumers are

accustomed to big 20 kg boxes due to big families. UVB meets this demand by having apples in 20 kg boxes but classified in three Classes, “A”, “B” and “C”. Farmers from UVB association were selling in the Peja market directly to consumers using banana boxes, MSP boxes and KCBS boxes trying to meet different requirements for different consumers and rarely to wholesale traders.

Summary of Post-Storage Apple Quality by Association

	UVB	PEMA
Class “A”	60 – 65%	50%
Class “B”	20 – 25%	40%
Class “C”	10%	10%

Apple prices

PEMA association was selling their apples to ETC for 0.20 – 0.22 Euro/kg and in the local market at 0.25 – 0.30 Euro/kg. At the beginning of the study the price was higher, varying from 0.30 – 0.35 Euro/kg for Class “A” apples, but due to lower quality of remaining apples and lack of post-harvest sorting, the price decreased. At the end of the study period the price was 0.25 Euro/kg with PEMA farmers competing between each other, sometimes selling for less 0.20 – 0.22 Euro/kg.

In the same time period, UVB association, whose members had performed post-harvest sorting, had much better apples and sold them at higher prices, consistently receiving 0.40 Euros/kg for Class “A”, 0.30 Euros/kg for Class “B” and 0.25 Euro/kg for Class “C.” The quality presented in the market was consistently high and contact with consumers is excellent. UVB apples are of better quality than the apples from PEMA and most UVB farmers are in no hurry to sell their apples since they know they can get better prices for high quality apples.

Prices received for unsorted apples in all forms of packaging vary with associations and average about 0.20 Euro/kg.

Prices presented below show wholesale average prices collected from Peja and Istog wholesale markets, collected mainly during their respective busy market days and from members of the associations. In Istog, prices were mainly from PEMA association. The average price for apples was 0.25 Euro/kg for PEMA association. Maximum price was 0.33 Euro/kg and minimum price was 0.20 Euro per kg.

Prices presented in Peja are mainly prices from UVB association. Prices ranged from 0.20 Euros/kg for Class “C” up to 0.50 Euro/kg for Class “A” summer apples. The average price for UVB apples was 0.30 – 0.35 Euro/kg.

Apple Price Summary by Association (Euros/kg)

	UVB	PEMA
High	0.50	0.33
Low	0.20	0.20
Average	0.30– 0.35	0.25

Prices of Apple – February 2007 - Study Period

	Apple Class A			Apple Class B			Mixed Apple Class
	KCBS Box	Banana Box	Wooden box	KCBS Box	Banana Box	Wooden box	All in Banana Box
08.02.07 - Istog	0.33 E/kg	0.25 E/kg	0.20 E/kg	0.28 E/kg	0.22 E/kg	No	0.20 E/kg
15.02.07 - Istog	0.33 E/kg	0.25 E/kg	0.20 E/kg	0.28 E/kg	0.22 E/kg	No	0.20 E/kg
22.02.07 - Istog	0.33 E/kg	0.25 E/kg	0.20 E/kg	0.28 E/kg	0.22 E/kg	No	0.20 E/kg
10.02.07 - Peja	0.40 E/kg	0.40 E/kg	No	0.3 E/kg	0.3 E/kg	No	0.25 E/kg
17.02.07 - Peja	0.40 E/kg	0.40 E/kg	No	0.3 E/kg	0.3 E/kg	No	0.25 E/kg
24.02.07 - Peja	0.40 E/kg	0.40 E/kg	No	0.3 E/kg	0.3 E/kg	No	0.25 E/kg

Imputed labour cost

Performing post-storage grading, sizing and packing differed between the two associations. The time differences affect general profit of the farmer

Summary of Packing Time Survey by Association

	UVB	PEMA
Box Building (from flat)	80 sec	60 – 80 sec
Putting Box on Sorting Table	10 sec	10 sec
Sorting and Packing	180 – 200 sec	150 – 180 sec
Stacking Filled Boxes	30 sec	30 sec
Total Time	5.0 – 5.5 min	4.5 – 5.0 min
Boxes Packed/Hour/Person	11	12
Boxes Packed/Person/Day	90	100

It was observed that post-storage grading, sizing and packing at PEMA was not done very professionally and requires further improvement in order to be more competitive in the market. At UVB the grading, sorting and packing was done more carefully. While it takes more time at UVB than at PEMA, the prices received were higher as well.

Annual amortized cost of equipment used for grading, sizing and packing

The main equipment used for grading, sizing and packing is a table. Usually the amortization period for equipment is 10% per year over 10 years. But, since farmers think that life of one table is around 5 years, this means the amortization is 20% per year. A sorting table can only be used for 5 years with some repairs every year, especially for table coverage where sorting, sizing and grading happens.

They are two methods to calculate amortization of equipment. First method is equal amortization per year of 20%, and after year 5 the sorting table should be replaced with new one. Second method is amortization on remaining value of 20% every year and again replacing the table with new one.

Direct and indirect costs of grading, sorting, packing, packaging and the table are usually not considered by farmers. Apple producers cover these costs by putting fewer apples into the carton. For example, a carton that the farmer says has 10 kg may have only 9.0 – 9.5 kg. Using this method, the consumer is paying these costs and not the farmer.

TASK FINDINGS AND RECOMMENDATIONS

A. Post-Harvest Handling & Storage:

The process of sorting, grading and classification should start during harvest in order to avoid spoilage and improve the storage characteristics of the apples. UVB members perform this process in the orchard. Although members of PEMA association are able to harvest their apples faster, because they pack their apples without grading and classification, the reduction in price is a high “cost” for omitting this practice.

Both associations put their apples into large boxes at harvest time. However, at UVB the members use wooden boxes that allow good air flow in and around the apples. At PEMA the members put their apples into banana boxes which do not allow air circulation.

Storage is usually from 3 to 7 months. Neither association has cold storage space specific for apple storage so common farm storage rooms are used. During storage farmers can expect to have some losses due to loss of water or from spoiled apples that should not have been placed in storage. PEMA association has more problems with quality of storage and space. At UVB the wooden boxes are placed on wooden pallets, not stacked next to the outside walls and an aisle is left for easy access. At PEMA the banana boxes are stacked very close to each other and from wall-to-wall.



Picture 1. Storage facility at PEMA



Picture 2. Storage facility at UVB

B. Post-Storage Sorting, Grading and Classification:

Both associations have knowledge of apple classes and understand the impact of classification and appearance on price. Even though some members are sorting, grading and classifying apples into different packages they are few of them doing it correctly. During visual observations conducted randomly on farms and at markets in Istog and Peja, the consultant concluded that usually the bottom layer (out of two layers in the box) is a mixed category and only the top layer is the declared category. However, the better farmers at UVB and PEMA have more consistent quality in both layers. The sorting, grading and classification had an impact on the price of apples together with new packaging provided by KCBS, but the impact was greater at PEMA than at UVB where the quality was superior on average.

Farmers need to be more confident and honest in declaring the quality of their apples. This should start in the orchard. Avoiding low quality apples presented in the market promotes good quality of local apples.



Picture 3. Sorting, grading and packaging at PEMA



Picture 4. Sorting, grading and packaging at UVB

C. Packaging:

The most common packaging used for final sales by both associations is the second hand banana box, followed by second hand wooden boxes and then second hand boxes of other fruits, like mandarin oranges. During the late fall of 2006 the EAR Marketing Support Project (MSP) provided farmers with new 10 kg packaging. The cartons were structurally very weak although the appearance was very good. The new cartons from KCBS had good impact and were much stronger than the MSP cartons. This was more important for PEMA, since it helped compensate for lower apple quality. KCBS project provided 2,500 for each association. Unfortunately, the big differences in appearance and quality of the cartons from KCBS and MSP created confusion with consumers and retailers.



Picture 5. KCBS Carton Boxes & Appearance of local apples



Picture 6. KCBS Carton boxes & Appearance of local apples

D. Weight of Cartons:

Filled weight of cartons provided by KCBS differed from member to member. Some boxes of Class “A” weighed 10 kg, but usually the weight was between 9.0 - 9.5 kg per carton. Banana boxes varied in weight, too, from 18.0 kg for mixed class apples to 22 kg for Class “A” apples.

E. Consumers and trader preferences:

Consumers and trader preferences are for apples packed in cartons weighing between 5 kg and 10 kg. Due to the lack of quality boxes in Kosovo, apple producers are using mainly second hand banana boxes of 20 kg. Consumers are used with this type of package, and in the Peja region families are still big so it is more convenient for this type of consumer. Smaller packages between 5 and 10 kg are more appropriate for retail shops, supermarkets and wholesale markets like Pristina.

One of the success stories of this pilot project has been the new linkage of farmers with hypermarkets like ETC and Eskimo in Peja and supermarkets in Skenderaj and Prizren. The opening of a sales stall for a local group of producers in the Pristina wholesale market from late August till the end of February might be a profitable investment because it would improve the presence and competitiveness of local apples.

F. Appearance:

Appearance of apples produced by PEMA association should be improved and complemented with better packaging. The colour of their apples is weak making presentation of their apples poor, resulting in lower prices for some members of the association.

Appearance of apples produced by UVB is much better, with strong red colour and good presentation in the market. Apples produced by them can compete easily with imported apples from Macedonia, especially if the packaging would be appropriate.

In the cases of both associations, the main complaints from traders and consumers revolve around poor quality due to poor sorting and grading.



Picture 7. Market place – UVB - Peja



Picture 8. Market place – PEMA - Istog

G. Taste and Quality:

Apples produced in Kosovo have better taste and quality than imported ones from Macedonia even though they can't compete with high quality from Greece and Italy. While the taste of locally produced apples is much better than imported ones, due to good appearance and consistent packaging imported apples have higher prices.

H. Market Access:

Poor access to market and improper modes of transport affects apple sales and marketing. For traders in the Pristina wholesale market, the travel time to Kovraga or Blagaje is nearly the same as it is to Skopje, making it more difficult for local producers to compete.

The main markets for PEMA association are: Istog Peja, Skenderaj, Vushtrri and Klina. The main markets for UVB association are: Peja and Montenegro.

Prishtina market and regional markets in Prizren, Mitrovica and Gjakova aren't covered very well by local producers and in the future apple producers need more presence in those markets. At the same time apple producers should create better links with hypermarkets, provide better and consistent quality. In this respect we have to acknowledge the positive role of KCBS marketing specialists in strengthening these linkages.

I. Price impact:

Based on our observations in the market we can conclude that the impact of improved packaging, together with sorting, sizing and grading, was limited in this pilot study due to a lack of price fluctuations. The study was also hampered by fear from farmers, especially in PEMA association, that they can't sell their quantities at profitable prices. The maximum impact measured was an increase of 20%, from 0.25 Euro/kg to 0.30 Euro/kg, in sales directly to consumers in the wholesale market but not in sales to wholesale traders. In general the main impact was in volume of sales and more demand from hypermarkets and wholesale traders wanting the new type of packaging. During the study period most of the quantities were sold to wholesale traders and hypermarkets. At the end of the study the farmers had between 2 and 15 tons unsold while at the beginning some of them had up to 70 tons.

At UVB association we observed no changes in the price of apples using the new packaging. This was because even in banana boxes the apples were properly classified and were of excellent quality. The new packaging will help some of them to sell their remaining quantities to hypermarkets or wholesale traders.

CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE ACTIVITY

A. Basic Conclusions

Members of the two associations are producing the same varieties of apples using similar production methods and they have similar storage facilities. It is therefore useful to compare the different results. Based on this pilot research project we can conclude following:

- The practice of post-harvest sorting plus proper storage methods had more impact on price than using good packaging. The quantity of apples in Classes “A” and “B” were notably higher at UVB than at PEMA association.
- Failure to practice post-harvest sorting and proper storage methods was not hidden by using only post-storage sorting plus good packaging.
- The maximum price advantage in using good packaging was 20%.
- Good packaging is a cost that may boost prices, but only when used in tandem with post-harvest sorting, proper storage and post-storage sorting.
- Poor quality packaging may increase losses and make the product less competitive with imported apples.
- The combination of good quality apples and good packaging will provide the best opportunity to obtain the best price.

B. Consumer Survey Results:

Based on a questionnaire developed by the consultant and answered by 20 consumers surveyed in Peja and Istog markets, the following conclusions can be drawn in relation to apple marketing:

1. Consumers prefer local apples over imported ones and usually want Class “A” or “B.”
2. Currently consumers are more focused on quantity and low prices than quality.
3. Consumers’ main concern is to have healthy apples and appropriate size packaging for different types of consumers.
4. The preferred packaging for consumers is a 20 kg carton
5. More research is needed to determine where 10 kg cartons are preferred
6. Based on information received the prices offered is realistic for local apples.
7. The quality of local apples is perceived as very good but packaging needs improvement.
8. Consumers know that classification of local apples is done somehow but that layers are not classified equally. Most of the consumers are willing to pay higher price for quality classified apples and better packaging.
9. Consumer trust toward local apple producers is very high and the main improvements demanded by consumers are: quality, sorting, grading, sizing and better packaging.
10. More marketing activities in relation to local apples need to be an objective for the future.

C. OPPORTUNITIES FOR IMPROVEMENTS

- Diversify apple varieties currently produced in order to meet the demand of consumer for different types of apples. Currently Ida Red variety is dominant making it more difficult to sell.
- Improve storage facilities and storage practices for both associations in order to have better quality apples and longer period of storage which will get better prices.
- Better sorting, grading and classification to start during harvest and to avoid mixing Class "C" of apples with Classes "A" and "B."
- Packaging used by both associations should be consistent during the whole season in order to increase the awareness of consumer for local apples. Quality packaging will help meet demand for other potential consumers, especially for new markets like Pristina and Prizren.
- Improve sorting, grading, classification and packaging. The quality of apples produced locally is higher than imported ones, but due to the better sorting, grading, appearance and packaging consumers are more attracted to them.
- Apple producers need to be aware of consumer preferences. Sometimes consumer prefers Class "B" instead of Class "A."
- The filled weight of the packages should be consistent in order to create confidence with consumers.
- The cost of cartons should be calculated in the cost of apples in order to have correct price.
- Monitor prices in different markets of Kosova and regional markets to improve networking to understand markets better.
- Better control at the border, especially with Macedonia, since apples are used as camouflage for more expensive fruits in trucks.
- Strengthen group work through joint purchase of inputs and joint marketing in order to reduce the cost of production and increase presence in Kosovo market as local brand.

D. RECOMMENDATIONS FOR FOLLOW-UP

- Provide technical support for associations on hygiene of storage facilities, proper storage techniques and improvement of storage facilities for next season.
- Identify a professional designer to create appropriate design of packaging, logo and labelling for local fruits and vegetables competitive in the local market and potential for export. Farmer groups should propose the design for new packaging for apples from Kosovo. Change the logo from "Kosova Fruits" to "Peme Kosove" (in Albanian).
- Identify proper carton producers to produce consistent quality and required quantities of packaging for each association. Associations should organize joint purchase of cartons before next season.
- Identify a demonstration market place for marketing opportunities of local products like apples, potatoes, onions etc. inside the Prishtina wholesale green market to test competitiveness of local producers and willingness of consumers to buy local products.
- Identify hot spots in municipalities of Istog and Peja for association members in collaboration with departments of agriculture appropriate for direct marketing.
- Assist associations to work more on joint marketing and promotion using more aggressive forms to gain local market. Increase awareness and promote strongly local apples through improvement of quality, packaging, sorting and grading to gain the

confidence of consumer that quality of local apples is equal or better than imported apples.

- Conduct more market research about other potential markets and buyers within Kosovo, concentrating more on supermarkets, hypermarkets, wholesale traders and direct marketing to consumers.

ANNEXES

ANNEX I: Consumer Questionnaire

ANNEX II: Apple prices - SPHPK

ANNEX III: General information – PEMA & UVB Associations

ANNEX I: Consumer Questionnaire

1. Which apples you are consuming?

a) Local b) Imported

2. Which class of apples you prefer?

a) Class A; b) Class B; c) Class C; d) Mixed

3. Are you requiring quality apples or lower price and more quantity ?

4. What kind of packaging in quantity is more appropriate for you as consumer ?

a) 5 kg; b) 10 kg; c) 20 kg d) other

5. Is price of apple realistic in your market place?

6. What is the quality of apple and quality of packing of local apples?

a) good; b) average; c) bad; d) other

7. Are local apples classified ?

a) Yes ; b) No ; c) Some how ; d) Other

8. Are all rows of apples equally classified and same class ?

9. Are you willing to pay for better apple class and better packaging ?

10. Do you have a trust on quality of local apple and local producers ? What they need to improve to be more competitive?

ANNEX II: Apple Prices - SHPUK

Retail prices

	2002	2003	2004	2005	2006
<i>January</i>	0.75	0.80	0.54	0.45	0.50
<i>February</i>	1.00	0.78	0.50	0.40	0.50
<i>March</i>	0.76	0.73	0.50	0.43	0.50
<i>April</i>	0.90	0.74	0.50	0.85	0.63
<i>May</i>	1.88	1.08	0.75	0.85	0.93
<i>June</i>	1.63	1.20	1.21	1.50	1.25
<i>July</i>	1.44	1.18	1.04	1.50	1.30
<i>August</i>	1.26	1.20	0.80	1.20	1.08
<i>September</i>	1.05	0.92	0.70	1.10	1.18
<i>October</i>	0.95	0.70	0.65	0.50	0.60
<i>November</i>	0.88	0.68	0.58	0.50	0.53
<i>December</i>	0.85	0.48	0.50	0.50	0.55

Wholesale prices

	2002	2003	2004	2005	2006
<i>Jan</i>	0.60	0.40	0.35	0.32	0.36
<i>Feb</i>	0.50	0.48	0.35	0.30	0.40
<i>Mar</i>	0.49	0.43	0.35	0.30	0.38
<i>Apr</i>	0.56	0.42	0.35	0.60	0.35
<i>May</i>	1.33	0.70	0.41	0.60	0.58
<i>Jun</i>	1.13	0.80	0.70	0.70	0.90
<i>Jul</i>	0.98	0.78	0.75	0.70	1.03
<i>Aug</i>	0.99	0.80	0.59	0.70	0.88
<i>Sep</i>	0.73	0.60	0.48	0.70	0.70
<i>Oct</i>	0.65	0.40	0.45	0.35	0.34
<i>Nov</i>	0.50	0.38	0.43	0.35	0.36
<i>Dec</i>	0.43	0.35	0.35	0.35	0.34

ANNEX 3 – General Info on Association members – PEMA and UVB

Table – UVB association – General Information

Name & Surname	Total Quantity Sept. 06'	Current Quantity Feb. 07'	% of Class A	% of Class B	% of Class C	Packaging used	Quantity sold till now (tones)	Market places	Prices from beginning Euro	Quantity sold per market day
Husnija Beskovic	50 tones	20 tones	60 %	30 %	10 %	10 kg	30 (summer apple)	Peja	0.35 – 0.5	500 – 1000 kg/day
Hivzija Medunjanin	80 tones	30 tones	65 %	25 %	10 %	10 kg & 20 kg	50 (summer & winter)	Peja	0.25 – 0.4 summer 0.5 Euro	1000 kg/day
Safet Medunjanin	70 tones	35 tones	65 %	25 %	10 %	10 kg & 20 kg	35 (summer & winter)	Peja	Same	1000 kg/day
Shukro Medunjanin	40 tones	20 tones	65 %	25 %	10 %	10 kg & 20 kg	20 (summer & winter)	Peja & Prishtina	Same	500 – 800 kg/day
Sadrija Medunjanin	40 tones	15 tones	65 %	25 %	10 %	10 kg & 20 kg	25 (summer & winter)	Peja & Podgorica	0.25 – 0.5	500 kg/day
Mirsad Music	20 tones	10 tones		50 %	50 %	10 kg & 20 kg	10 (summer & winter)	Peja	0.20 – 0.35	300 – 400 kg/day
Ganija Music	5 tones	2.5 tones		50 %	50 %	10 kg & 20 kg	2.5 (winter)	Peja & home	0.20 – 0.35	200 kg/day
Besim Ceku	5 tones	1 ton		50 %	50 %	10 kg & 20 kg	4 (winter)	Peja	0.25 – 0.35	Finished sales

Table – PEMA association – General Information

Name & Surname	Total Quantity Sept. 06'	Current Quantity Feb. 07'	% of Class A	% of Class B	% of Class C	Packaging used	Quantity sold till now (tones)	Market places	Prices from beginning Euro	Quantity sold in % wholesale & market
Shemsi Blakaj	40 tones	4 tones	50 %	50 %	-	10 kg	36 tones	Peja, Istog, Prishtine Gjakove	0.20 – 0.25	20 % in market 80 % wholesale
Qerim Salihaj	32 tones	2.5 tones	65 %	25 %	10 %	10 kg & 20 kg	29.5 tones	Istog, Hypermarket "Banana", Albania, Vushtrri	0.30 – 0.35	50 % wholesale 50 % at market
Malush Salihaj	10 tones	2.5 tones	60 %	20 %	10 %	10 kg & 20 kg	7.5 tones	Istog, Klina	0.25	50 % market 50 % wholesale
Skender Blakaj	200 tones	70 tones	65 %	25 %	10 %	10 kg & 20 kg 8 kg	130 tones	Istog, Peja & Prizren, Home	0.20 – 0.25	20 % market 80 % wholesale
Qazim Blakaj	100 tones	40 tones	60 %	30 %	10 %	10 kg & 20 kg	60 tones	Istog, Gurrakoc, Peja & Home	0.20 – 0.25	20 % market 80 % wholesale
Sadik Blakaj	100 tones	10 tones	60 %	30 %	10 %	10 kg & 20 kg	90 tones	Peja, Istog, Skenderaj	0.20 – 0.25	20 % market 80 % wholesale
Ruzhdi Blakaj	40 tones	-	-	-	-	10 kg & 20 kg	40 tones (sold)	Prishtina		100 % wholesale
Gezim Belegu	10 tones	2 tones	60	25 %	15 %	10 kg & 20 kg	8 tones	Istog		70 % market 30 % wholesale