## QUALITY OF FRUIT ON THE POLISH MARKET IN THE CONTEXT OF MINIMUM STANDARD REQUIREMENTS

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### ABSTRACT

The aim of the study was to determine the level of commercial quality on the domestic fruit market in the context of minimum quality requirements which are essential for allowing fruit to be traded. The source of data were surveys conducted among 470 fruit producers, 10 wholesalers and 165 retailers in the Lublin province in 2003-2006. The research showed that the awareness of the existence and the binding nature of quality standards among participants in the fruit distribution chain was unsatisfactory. The knowledge of relevant quality standards was also very limited. In their assessment of fruit quality none of the distributors took into account all the features included in the minimum requirements of the existing quality standards. Therefore, the results of the analyses did not testify to the high commercial quality of fruit on the domestic market. Preparation of fruit for sale did not meet in many cases even the minimum requirements of commercial quality standards. The widespread conviction as to the importance of quality standards in improving fruit quality was therefore not reflected on the market of the Lublin province despite the binding nature of such standards.

Key words: quality, marketing standards, fruit, minimum requirements

### INTRODUCTION

Ensuring proper food quality, including that of fruit, is strictly related to the willingness to follow legal regulations. Current regulations do not allow trading in products of unsatisfactory quality and take care of consumers' welfare, their health and lives, and their economic security (Kijowski and Sikora, 2003; Jabłońska and Pawlak, 2004). Currently, the highest attention is paid to legal regulations related to nutritional

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value and consumer health protection, which contributes to the quality of personal health (Wiśniewska, 2005; Nieżurawski and Popławski, 2009). However, on the horticultural produce market, standards of commercial quality are equally important, which determine requirements for various types of fruit (Płocharski, 2001). On the Polish market there are a lot of various quality standards. However, because of the growing importance of international trade, international quality standards should play a greater role (Swinnen and Maertens, 2007; Van der Voort et al., 2007: Trienekens and Zuubier. 2008). In Poland, this problem has been regulated by the EU law since the day of accession. Apart from not allowing trading in products of low quality for the good of the consumer. the EU quality standards unify quality requirements for fruit from various suppliers. Moreover, they facilitate the fruit trade and allow trade development without the physical presence of the products concerned (Trienekens and Zuubier, 2008). According to Ciechomski (2002) and Nosecka (2003), the regulations reduce transaction costs and are the basis for settling disputes between contracting parties. Furthermore, they create equal legal conditions for fair competition between various businesses (Strzębicka, 2005). Because of their binding nature, they should also contribute to raising the quality of products (fruit and vegetables) (Ciechomski et al., 2000: Świetlik, 2001). As the regulations play such a vital role for the various

participants in the fruit trade, it seems crucial to become familiar with the level of the commercial quality of the fruit on the domestic market in the context of the current quality standards, especially the minimum requirements, which determine if fruits can be allowed to be traded.

### MATERIAL AND METHODS

The main part of the study were analyses which aimed at assessing the level of the commercial quality of fruits on the market based on minimum requirements, conducted by means of empirical research. This assessment was done at all stages of trading, that is, from the fruit producer through the wholesaler to the retailer. The study focused on the most popular dessert fruit on the Polish market: apples, pears, plums, cherries, sour cherries and strawberries. Detailed analyses that made it possible to draw conclusions concerning the quality of fruit on the domestic market included the following issues:

- trade participants' knowledge of the obligatory standards for fruit quality,
- the criteria of fruit quality assessment done by fruit producers and intermediaries,
- the importance of particular fruit characteristics and kinds of acceptable defects in the assessment done by trade participants,
- packaging and labelling.

The assessment of the particular elements contributing to fruit quality was done with reference to the mini-

mum requirements for commercial quality in the European Union.

The source of empirical data for the study was a survey carried out in 2003-2006. Currently, another survey is being carried out, but the amount of information obtained so far is not sufficient to compare the results. Separate questionnaires for various trade participants had been prepared on the basis of the EU requirements for the commercial quality of various types of fruit. The study was carried out in the form of a direct survey among 470 fruit producers, 10 wholesalers and 165 retailers.

### **RESULTS**

### Standards of commercial quality

International quality standards are designed to remove the barriers imposed by national quality standards. They are concerned with commercial quality only, that is, with organoleptic characteristics, physical and chemical characteristics, and the requirements in relation to classification, packaging and display (Van der Voort et al., 2007). They have existed on the EU market since 1972 and refer to the quality standards of the European Economic Commission of the UNO. Standards of commercial quality were in effect until 2008 and were regulated by separate directives of the EU Commission for 16 types and type groups of fruit. Currently, standards of commercial quality are regulated by one directive of the EU Commission No. 1221/2008 (general and particular) formulating executive regulations in the fruit and vegetables sector. Seven specific standards for various types and type groups of fruit have been distinguished, concerning apples, pears, strawberries, grapes, kiwi fruit, peaches and nectarines, and citrus fruits. A general standard applies to other kinds of fruit. The changes in legislation in the European Union community were made mostly in order to increase competitiveness in the market sector and to simplify the regulations.

The structure of the commercial quality standards for particular fruits is similar - all of them contain the same rules for preparing products for sale. Particular requirements in each of the marketing standards preceded by product characteristics. The fruit is always identified by its Latin name and there is a statement that the standard does not concern fruits for technological processing. The next point concerns quality. This point includes minimum requirements and special requirements for particular classes of quality. The minimum requirements are practically the same for all products. According to them, products should be intact; healthy, which means that products with signs of decay are not allowed to be traded; clean, that is free of any visible dirt; practically free of pests and signs of damage caused by them; free of extensive surface damp; free of strange odours and flavours. In the part concerning the minimum requirements there is also a note saying that products must be fully developed and ripe to a degree allowing transport to their destination without impairing their quality. Apart from the above requirements, the commercial quality standards for different fruit may contain additional minimum requirements, specific to a given product.

# Knowledge of quality standards among trade participants

Taking into account the fact that fruit quality standards have been used in Poland for years, the knowledge possessed by trade participants in relation to those standards must be described as unsatisfactory. research results have shown that only 69.6% of fruit producers and 61.2% of retailers knew that there were commercial quality standards for fruit. The fact that the standards are obligatory was known to an even smaller number of people. 43.4% of producers and 55.8% of retailers knew that such standards were obligatory. Only wholesalers were aware of the existence of obligatory quality standards. However, 20% of them were unsure if the standards were Polish or European. At the same time, only 5.4% of producers, 20% of wholesalers and no retailers declared that they were fully familiar with all of them. Therefore, we can definitely say that the participants in the fruit trade were not particularly interested in fruit quality standards. There were some of them who claimed that there were no obligatory quality standards for fruit in Poland. This situation results from the fact that the respondents do not realise that they are responsible for ensuring that the fruit to be traded complies with the standards.

## Criteria for assessing commercial quality of fruits

The rules for sorting, packing, labelling and displaying fruit set out in the EU quality standards should be regarded as the basic criterion to be taken into account by producers when preparing products for sale. However, due to their lack of knowledge in this respect, as shown above, most of the producers used their own criteria, mostly a few at a time. As many as 85.3% of them paid most attention to the requirements of a particular recipient. 44.7% of them relied on their long-standing practices and habits. 16.8% followed the example of other producers, and 15.2% of the survey participants put up discussions with them as the most important. All these criteria are subjective opinions, which results in considerable differences in the quality of fruits on the market and questionable transactions. Only 20.4% of the survey participants followed the requirements of marketing standards when preparing fruit for sale, which could be interpreted as a positive sign of the changes to come, but taking into account the fact that only 5.4% of producers declared their full knowledge of the quality standards, those responses cannot be taken as reliable.

A similar situation occurred in the case of the surveyed wholesalers and retailers during the process of purchasing fruit. The survey showed that despite the wholesalers' high knowledge of the legal obligation to follow commercial quality standards, only 20% of them actually followed the regulations when choosing fruits. Among retailers it was merely 4% of

the survey respondents. Others preferred their own knowledge and experience, which were the only criteria for 20% of wholesalers and 84% of retailers. At the same time. 60% of wholesalers and 9% of retailers followed both the quality standards and their own experience. Hence, most intermediaries limited their selection criteria to their own experience and only a few used marketing standards. Therefore, it can be concluded that the vast majority of wholesalers and retailers consider their own experience in fruit selection to be sufficient in the process of providing customers with high quality fruit.

# Fruit characteristics taken into account by trade participants in quality assessment

The survey shows that the particular groups of trade participants took into consideration different characteristics in their assessment of fruit quality when preparing fruits for sale. Even the minimum requirements specified in commercial quality standards were applied differently when selecting fruits for trade.

In the studied population, no group of respondents took into account all the features required of fruit listed in the quality standards as the minimum requirements. Most respondents in all the studied groups paid the highest attention to the health and cleanliness factors. The respective percentages were 89.9% and 84.2% of the studied producers, 93% and 64% of the retailers and all the wholesalers (Tab. 1). The fruit

producers considered lack of mechanical damage as quite important as well as how developed the fruits were, which were taken into account by 80.2% and 74% of them respectively. The least important features for producers were strange odours and tastes, and surface damp on fruits. Those features were taken into account by 42.6% and 31.2% of fruit producers respectively. For retailers and wholesalers, the least important were lack of mechanical damage and lack of pests and surface damp on fruits. Those features were taken into account by 34%, 38% and 55% of retailers respectively, and by 70% of wholesalers in each of the three cases. The results confirm the previous observation that in making demands on suppliers most respondents followed their own criteria, knowledge and their own perceptions of fruit quality.

## Packaging and labelling of fruit as an element of commercial quality

All the respondents also had different approaches to the homogeneity of fruits in a single package, which is regulated by the standards and increases the quality of the products on offer. They only agreed on the opinion that the fruits should be of the same cultivar, but even on this point an average of 6.4% of producers and 13% of retailers claimed that they can be mixed (Tab. 2). Interestingly enough, only 75.3% of producers, 80% of wholesalers and only 59% of retailers paid attention to putting fruits of the same quality class into the same package. According to the respondents, the least important

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Table 1. Fruit quality characteristics taken into account by trade participants when introducing fruits on the market (% of a given population group)

	Commercial quality characteristics										
Specifications	health	cleanliness	lack of damage	bests	surface damp	maturity, development stage of fruits	strange odours and flavours				
Total population of surveyed producers											
Total	89.9	84.2	80.2	62.4	31.2	74.0	42.6				
Total population of surveyed wholesalers											
Total	100	100	70.0	70.0	70.0	90.0	100				
Total population of surveyed retailers											
Total	93.0	64.0	34.0	38.0	55.0	75.0	58.0				

Table 2. Fruit quality characteristics taken into account by trade participants when introducing fruits on the market in single packages (% of a given population group)

Specifications	Characteristics									
	origin	cultivars	trade quality	colour	size	maturity stage				
Total population of surveyed producers										
Total	59.9	93.6	75.3	59.8	63.0	61.9				
Total population of surveyed wholesalers										
Total	100	100	80.0	60.0	80.0	90.0				
Total population of surveyed retailers										
Total	65.0	87.0	59.0	32.0	32.0	45.0				

features as far as homogeneity is concerned were the same colour and size of fruits. The former was taken into account by 59.8% of producers, 60% of wholesalers and 32% of retailers, and the latter by 63% of producers, 80% of wholesalers and 32% of retailers.

An important element of commercial quality in respect of both legal regulations and consumers' trust is labelling. Unfortunately, only 25.7% of producers, 52.7% of retailers and all the wholesalers accomplished this. What is even worse, not a single representa-

tive of the three groups was in possession of a product with all the obligatory information provided on it. Most of those who labelled fruits gave the name of cultivars, the name of their species, (not required by the marketing standard), and quality class. Among the producers, an average of 86.3% provided information on the cultivars, 71.3% on the quality class, 51.1% on the name of species; among the retailers, the respective figures were 48%, 39% and 25%. The first two details were also provided, respectively, by 70% and 80% of wholesalers. None of them provided the the name of species.

### CONCLUSIONS

Common standards of commercial quality have been in effect in Poland since the admission to the EU and they have been obligatory at all stages of trade. However, the research shows that the knowledge of obligatory quality standards among trade participants was unsatisfactory. None of the surveyed groups of trade participants took into account all the features which are the minimum requirements specified in the obligatory marketing standards. Wholesalers were the ones who paid the highest attention to the quality standards. The standards were less important to fruit producers and the least important to retailers. The trade participants had different approaches to the homogeneity of fruits in a package. The research presented above does not allow a positive assessment of the commercial quality of fruits on the domestic market. The process of preparing fruit for sale did not meet the minimum requirements of commercial quality standards. Therefore, the common opinion about the importance of quality standards was not reflected on the market in the Lublin province, despite the fact that they are obligatory.

### REFERENCES

- Ciechomski W. 2002. Uwarunkowania rozwoju sektora owocowo warzywnego w aspekcie integracji z Unią Europejską. ZAGAD. EKONOM. ROL. 4-5: 45-53.
- Ciechomski W., Marzec-Wołczyńska T., Niewiadomski J. 2000. Rynek warzyw i owoców. Strategiczne opcje dla polskiego agrobiznesu w świetle analiz ekonomicznych. SGGW, Warszawa, pp. 421-452.
- Commission Regulation (EC) No 1221/2008, of 5 December 2008, amending Regulation (EC) No 1580/2007 laying down implementing rules of Council Regulations (EC) No 2200/96, (EC) No 2201/96 and (EC) No 1182/2007 in the fruit and vegetable sector as regards marketing standards.
- Council Regulation (EC) No 2200/96 of 28 October 1996 on the common organization of the market in fruit and vegetables.
- Jabłońska L., Pawlak J. 2004. Wymagania jakościowe na rynku ogrodniczym. Mat. I Konferencji AGF Polska 2004. Warszawa, pp. 4-9.
- Kijowski J., Sikora T. 2003. Zarządzanie jakością bezpieczeństwem żywności, integracja i informatyzacja systemów. Wyd. Naukowo-Techniczne. Warszawa.
- Nieżurawski L., Popławski W. 2009. Międzynarodowe regulacje dotyczące jakości produktów żywnościowych. Roczniki Naukowe SERIA. T XI, Z. 3: 259-264.

- Nosecka B. 2003. Dostosowywanie polskiego rynku owoców i warzyw do wymogów obowiązujących w Unii Europejskiej. In: Dostosowywanie polskiego rynku rolnego do wymogów Unii Europejskiej. IERiGŻ. Warszawa, pp. 165-176.
- Płocharski W. 2001. Jakość i możliwości wykorzystania owoców z uwzględnieniem preferencji konsumentów. ZESZ. NAUK. INST. SADOW KWIAC. 9: 251-266.
- Strzębicka A. 2005. Rozwój systemów zapewniania jakości na rynku owoców i warzyw. PR. NAUK. SGWW 35: 552-560.
- Swinnen J.F.M., Maertens M. 2007. Globalization, agri-food standards and development. RIVISTA DI ECONOMIA AGRARIA/ A.LXII. N3: 413-420.

- Świetlik J. 2001. Szanse i zagrożenia dla rozwoju polskiego sadownictwa ze szczególnym uwzględnieniem jabłek, truskawek i wiśni. ZESZ. NAUK. INST. SADOW KWIAC. 9: 337-352.
- Trienekens J., Zuubier P. 2008. Quality and safety standards in the food industry, developments and challenges. INTER. J. PRODUC. ECOM. VOL. 113(1): 107-122.
- Wiśniewska M. 2005. Od gospodarstwa do stołu. Organizacja i zarządzanie jakością oraz bezpieczeństwem produktu żywnościowego. Wydaw. Uniwersytetu Gdańskiego.
- Van der Voort M. et al. 2007. Quality requirements for vegetables and fruit products in the European Union. Applied Plant Research, Research Unit Arable Farming and Vegetable Production, Wageningen.

### JAKOŚĆ HANDLOWA OWOCÓW NA KRAJOWYM RYNKU W ŚWIETLE WYMAGAŃ MINIMALNYCH

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### STRESZCZENIE

Celem pracy było określenie poziomu jakości handlowej owoców na krajowym rynku w świetle wymagań minimalnych. Źródłem danych empirycznych były badania ankietowe przeprowadzone w latach 2003-2006 na terenie woj. Lubelskiego wśród 470 producentów owoców, 10 hurtowników i 165 detalistów. Badania wykazały, iż świadomość istnienia i obligatoryjności norm jakości wśród uczestników łańcucha dystrybucji była niezadowalająca. Bardzo niska wśród uczestników obrotu była również znajomość zapisów norm. Ani jedna grupa uczestników obrotu nie brała pod uwagę w ocenie jakości owoców wszystkich cech uwzględnianych w wymaganiach minimalnych zapisanych w obowiązujących standardach jakości. Dlatego wyniki analiz nie pozwoliły na wysoką ocenę jakości handlowej owoców krajowej produkcji. Przygotowanie owoców do sprzedaży nie spełniało niejednokrotnie nawet minimalnych wymagań norm jakości handlowej. Powszechne więc przekonanie o ogromnej roli norm w podnoszeniu jakości nie znalazło odzwierciedlania na rynku Lubelszczyzny, pomimo ich obligatoryjności.

Słowa kluczowe: jakość handlowa, owoce, wymagania minimalne