# **Honey Frauds on Croatian Market**

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#### ABSTRACT

Honey market in Croatia has been seriously influenced by COVID-19 epidemics. Its' impact was initially felt when general limitations of mobility were enforced having influenced the normal beekeepers' production doings. Furthermore, it also inflicted supply chains and raised transportation costs what significantly influenced the prise of honey. Climate changes as well as unfavourable human activities (in agriculture, industry, urbanization, etc.) additionally diminished beekeeping outputs and consequently led to the raise of the honey prices. Old human saying says "where there is demand there will be supply". Croatian honey market is not an exception. It reflects the situation on wider market of European Union, where great portion of honey on offer, derives from so called "external sources". With the courtesy of Croatian Beekeepers' Association, a study of Croatian food market was conducted in order to find what are the numbers of imported and entered honey, their origin, worth and selling prices. Furthermore, these numbers were confronted to their Croatian counterparts in order to obtain first measurable indications of the honey market trends. Significant efforts were undertaken in the analysis of the samples taken from the most attractive selling locations along the Croatian Adratic coast (60+) during tourist seasons. The results showed that large portion of these samples were significantly altered or were not honeys at al. It also showed that they were deliberately intended mostly for specific population – foreign tourists, unknowing to quality and characteristic sensory properties of most popular Croatian honeys (sage, levender, rosemary, tangerine, etc.). It also revealed that national regulatory and control authorities were not up to the task, nor in prevention, nor in sanction of these occurrences. This paper is going into the deeper elaboration of the results of this study that has been designed as consumer protection project that also dealt with considerable safety issues.

Keywords: Honey, Frauds, Adulteration, Safety, Quality

#### INTRODUCTION

Croatian normal honey production measures 8500 to 9000 tons annually. This number stands for the beekeepers' production and has been marketed, almost 80% within the private channels of farmers' family households, fairs and specialized shops (Lušić D., 2020). COVID-19 pandemics seriously affected this production and the numbers are still to be fully elaborated. Furthermore, storms, droughts, bee diseases, bee poisonings had taken their toll as well. If unfavourable forecasts of production come true, and the production of domestic honey will be low in 2021, the Croatian beekeeping sector will face ever stronger pressure from the honey importers lobby. Now, when domestic honey production is on low branches, and when are likely the additional imports of everything that is called "honey" by the international market, the importance of the Croatian legal standard - the clear and unambiguous labelling of all countries of origin of honey on honey jars - is finnally coming to light (Lušić D., 2021a).

#### SURVEY 1

There have always been a big question about the quantities of foreign honey that, in one way or another, finished at the Croatian market. Croatian Beekeepers' Association (HPS) put lot of efforts into finding these data, but for years the precise figures were elusive (Lušić D., 2019a). Until now. Finally, with the courtesy of the Sector for Agriculture and Tourism of the Croatian Chamber of Commerce, these data were obtained for the first time ever (Croatian Chamber of Commerce, 2019). Figure 1 shows a cross-section of the obtained data for whole 2019 and the first five months of 2020. Here should be made clear that, according to EU customs rules, there is a huge difference between the terms "imported" and "entered". The "entered" refers to the input of honey from EU countries, while the "imported" refers to the input of honey from non-EU countries (so-called third countries). Interestingly, in its' reports, Croatian Chamber of Commerce states that it is a "natural honey". It should be emphasized that both the Croatian Ordinance on Honey and the EU Directive on Honey (from which this Ordinance derives), do not recognize the category of "natural honey". (?). It's either honey or it's not at all!! It is known from retail practice that the use of the term "natural honey" is a violation of regulations related to the labelling of honey. It was left unexplained if the official statistics are kept for other forms, apart from the "natural honey". Given attention to the total average price of honey per kilogram from imports, it showed an interesting development. In 2019, it amounted to the average of honey (per kilogram) originating from Spain and Poland were almost identical to the price of honey originating from China (1,52-2,13 EUR and 1,51-1,89 EUR for 2019 and 2020 respectively). It is quite clear that it is absolutely incredible that a kilogram of honey can be produced at this price. Especially , if the shipping costs were also included in this price. This seriously put in doubt the true place of origin of the "ho

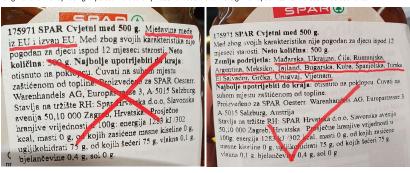
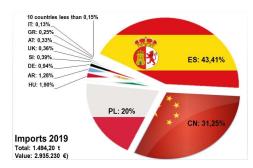


FIG 1. Honey labeling in SPAR supermarkets prior and after legal actions taken by the athorities



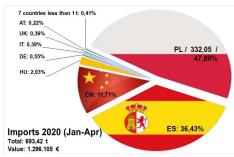


FIG 1. Countries with the largest share of imported and entered "natural" honey in Croatia

#### SURVEY 2

A field survey carried out by the executives of HPS, showed that the honey samples checked at 60 locations showed only one sample complying to legal honey requirements. It was executed in 2019 in the format of staged tourist visit to the vending locations along the most frequent rotes in the midst of the touristic season (Lušić d., 2019b). The results were disturbing. Non compliances were mostly related to foreign odour and/or taste identified as adulteration with essential aromas of medicinal plants (sage, layender, rosemary, citrus, pine). In this case the fraudulent activity was reflected in the fact that essential aroma had been added to inverted sugary syrup thus misleading the consumer about the true nature of the product (Lušić D., 2019a). Furthermore, more than few samples showed obvious safety issues related to the chemical health risks associated with the use of such "aromas" in nutrition as well as to explicit unhygienic vending methods. Likewise, it was noticed that more than 80% of the samples have not been labelled at all and with serious indication of organized nature of supply and vending network. This "expedition" resulted with the great interest of the media (HRT, 2019) that took their own initiative and carried out very similar actions in 2020 and 2021, With almost the same results (RTL Televizija 2020, 2021), Unfortunately, the official health and food authorities did not performed a single action in order to remove or prevent such deeds. Only the cases of targeted actions backed by decisive media pressure prompted their action. It was the case when regional beekeeping association of Primorje-gorski kotar from Rijeka, filed a formal report of mislabelled honey against the biggest retail supermarket of Croatia – SPAR (UPU PGŽ, 2020). It was discovered that it is selling the import honeys not complying to the Croatian compulsory labelling of countries of origin. At the beginning, the State Inspector's Office did not take any action. Only after the official complaint notice and reminders, and the consequent public media pressure, the legal action occurred. It resulted that the complete contingents of foreign honeys were withdrawn and relabelled (Fig 2). It was seen that these were not the honeys but blend of honeys deriving from fifteen (15) countries and 4 continents (Lušić D., 2021b). Although present sporadically, this example has prompted other major honey vendors to comply under the croatian labelling rules hence alloving the much higher level ofconsumers' protection.

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