
Orchard survey, 2017 in Hungary -Transforming respondents to users and increase the intensity of cooperation

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Abstract

Based on Regulation (EU) No 1337/2011, the Orchard Survey, 2017 was conducted in Hungary between 14 February 2018 and 16 April 2018. The survey period was divided into two phases: (1) two-week online data collection phase for self-filling, (2) and a longer data collection phase with the involvement of surveyors. Beside of the collection of good-quality data by the deadline, one of the main goals of the project was to increase the share of self-administered questionnaires in order to reduce the cost of the data collection.

The planning phase of the project was carried out in strong cooperation with the stakeholders: professional bodies and the Ministry of Agriculture. A cooperation agreement was signed with the ministry in order to share information and costs. The list of respondents was selected from the Integrated Administration and Control System (IACS) administrative register, among farmers applied for Single Area Payment in 2017.

Beside the regular communication techniques (advertisements, press conferences) the data collection had several new aspects to increase response rate, level of interaction with the respondents and their willingness for cooperation:

- before the online period a storytelling application was prepared to promote the already available free data on the website of the Hungarian Central Statistical Office,
- on conferences and other professional events high-level management presentations of the Ministry contained information on the importance of Orchard survey, 2017 to promote farmers involvement (data needed for evidence-based decision making),
- at the end of the questionnaire respondents were asked whether they would like a feedback on the survey results and related publications.

The project has closed with very good results in several aspects:

- a record high share of self-administered questionnaires during the two-week long period. More than 50% of the respondents filled the questionnaire online. Before this data collection the highest rate was 16%,

- the overall response rate was also extremely high. More than 99% of the farmers filled the questionnaire by the deadline,
- more than 50% of the respondents asked for feedback, and information on publications based on the results,
- at the time of the first publication a newsletter was sent out to these farmers, the result was that the publication of the preliminary results in May attracted record high number of visitors.

As a summary during these couple of months official statistics on agriculture got higher public and media attention. More users became aware of the available agricultural statistics, and different data collections on this field. We have analysed the data collection in detail and as preparation for the Agricultural Census 2020 have started already in Hungary we would like to use all the experiences, lessons learned and best practices originated from this Orchard Survey.

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1. Background

Based on Regulation (EU) No 1337/2011¹ Orchard Survey, 2017 was conducted in Hungary by Hungarian Central Statistical Office (HCSO) between 14th February 2018-16th April 2018.

Regulation describes that what variables must be collected in connection with given fruit species and what kind of cross tables need to be transferred to Eurostat.

2. Preparation

The planning phase of the project was carried out in strong cooperation with the stakeholders: professional bodies and the Ministry of Agriculture. A cooperation agreement was signed with the ministry in order to share information and costs.

Beside the compulsory fruit species (apple, pear, peach, apricot) it was decided to collect information on five more species as they represent significant share of the total orchard area in Hungary. Therefore data collection covered beside apple, pear, peach, apricot, also cherry, sour cherry, plum, walnut and elderberry plantations. Furthermore as the last orchard census was carried out in 2001 in case of the data collection were carried out as a census for these nine fruit species. As a result almost 15 thousand farmers were contacted, who had to report their fruit area that altogether represented 80% of total Hungarian orchard area.

The frame included farms that applied for Single Area Payment (SAPS) for any of the nine fruit species if that area reached 2500 m². All the register information for the data collection came from the Integrated Administration and Control System (IACS).

The data to be collected, and the survey design was developed in close cooperation with expert, so that the most relevant data were collected in connection with Hungarian fruit production. Before finalizing the questionnaire tests were carried out so that the logic and the type of question became easily interpreted by farmers.

The survey period was divided into two phases:

(1) CAWI: two-week online data collection phase for self-filling (between 14th February 2018-28th February 2018),

(2) CAPI: a longer data collection phase with the involvement of surveyors (between 1st March 2018-18th April 2018).

¹ <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32011R1337>

Main goals of the project:

- (1) Beside of the collection of good-quality data by the deadline, one of the main goals of the project was to increase the share of CAWI in order to reduce the cost of the data collection. It was planned to have at least as high share of CAWI as in case of the last Farm Structure Survey, which was 16%.
- (2) The other major goal of the data collection was to reach at least 95% response rate.

3. Promotion of data collection

Beside the regular communication techniques (advertisements, press conferences) the data collection also had several new aspects to increase response rate, level of interaction with the respondents and their willingness for cooperation.

Main forms of communications were the followings:

(1) Press communication

Before the data collection five press conferences were organized to inform respondents, and increase their participation. Press conferences were held in Budapest and in four counties, where fruit production is significant in the country. Press conferences generated 153 news in the media, and beside that there were also some online and offline advertisements in major agricultural newspapers.

(2) Story telling application

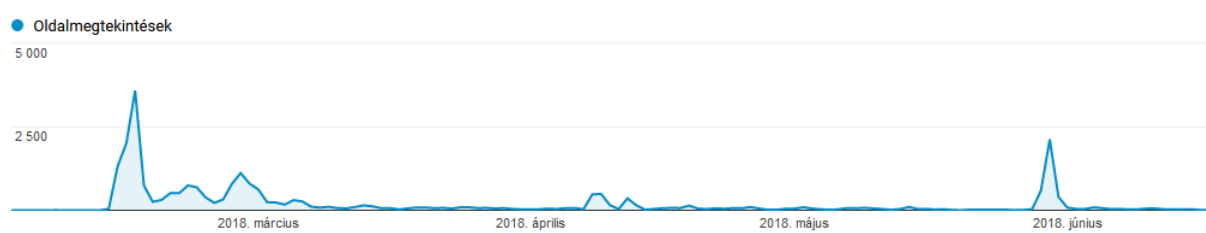
It was very important to increase the motivation of respondents. It thought to be effective to show all the stake holders how many data available for analysis and use, so that to prove that HCSO data collection can provide valuable resource for evidence-based decision making.

Therefore before the online period, a storytelling application was prepared, to promote the already available free data of the HCSO's website. The data on area, yield and price on the fruit species were organized in a structural way, that the interlinkages between the different datasets were explained.

<http://www.ksh.hu/interaktiv/storytelling/gyumolcs/index.html?lang=en>

The link reached altogether 26 thousands of visitors, that was a great success as previously no other agricultural publication had got so much attention. Number of visitors peaked two times. Once before the data collection, and once at the time of publishing the preliminary results of the survey in May.

Figure 1. When was the storytelling application the most visited



(3) Cooperation with experts

On conferences and other professional events high-level management presentations of the Ministry provided information on the importance of Orchard survey, 2017 to promote farmers involvement

(data needed for evidence-based decision making). It was explained in details that data is needed to plan future agricultural policies.

Members of the Hungarian Chamber of Agriculture and Fruit Producer Association were also informed by newsletter, and online information.

(4) Feedback for respondents

To make data collection more interactive, at the end of the questionnaire respondents were asked whether they would like a feedback on the survey results and related publications. 50,7% of the farmers asked for future publication, which number showed how big interest were generated towards the result of the data collection. First information emails were sent out at the time of releasing the preliminary results in html format, that contained maps and interactive diagrams. As a result: the preliminary results in May also attracted record high number of visitors, much higher than in case of the last Farm Structure Survey in 2016.

http://www.ksh.hu/elemzesek/gyumolcs2017_elozetes/index.html

(5) Online help

Respondents could reach our office in connection with the data collection using an email address dedicated to only this survey. They could also ask for help by telephone.

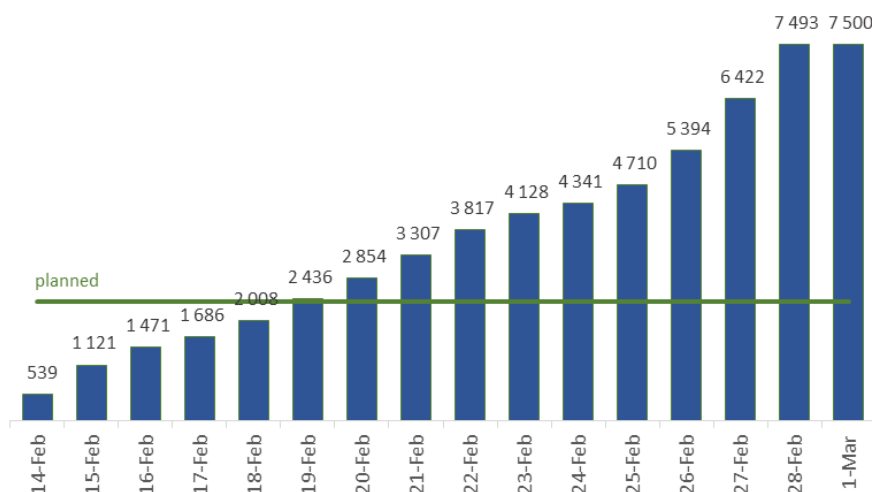
(6) Email reminder

Emails were sent out several times during CAWI period to remind farmers, that they have an opportunity to fill questionnaire by themselves online.

4. Data collection

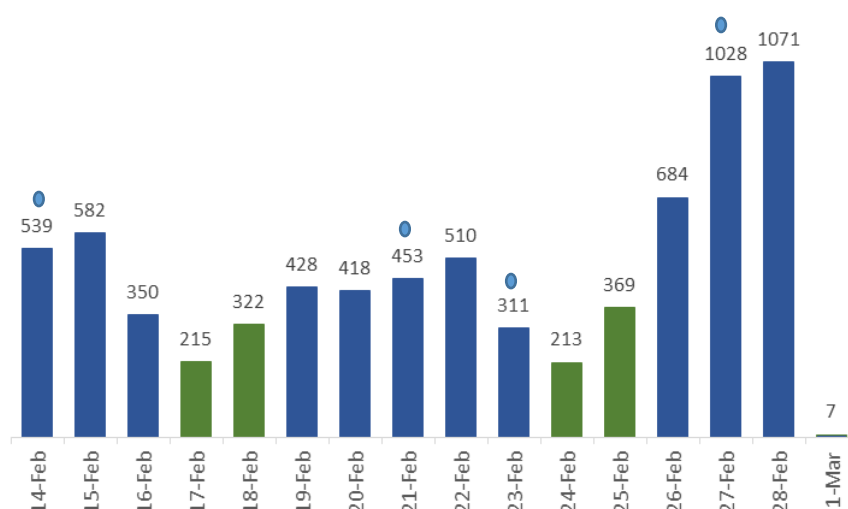
Before the data collection it was planned that around 16% of farmers would complete questionnaire online. But as a result of the active communication and increased involvement, this goal was reached on the 6th day of the two-week long CAWI period. At the end, the online completion was 50,5%, which was record in case of agricultural data collection (before that the maximum was 16%).

Figure 2. The number of CAWI respondents during the two-week period



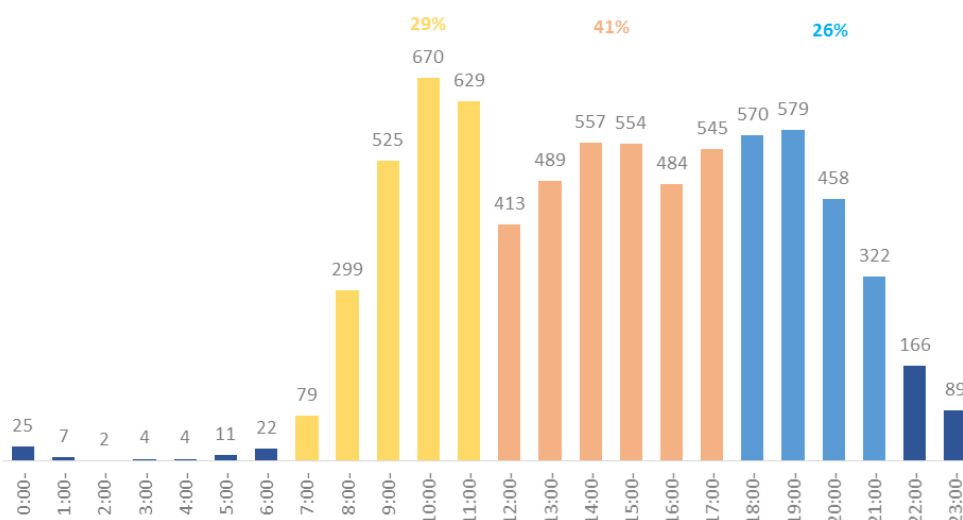
On the next figure it can be seen that activity during the CAWI period shows periodicity. The least active day was Saturdays, but weekend started on Friday and response rate was the lowest on the last 3 days of the week. The time of the reminder emails are also indicated on the figure by points. They also helped to increase the completion of the questionnaire on the following days.

Figure 3. CAWI respondents per day during the two-week period



Some analysis was also made, to find out which part of the day is the most active. Intensity of completion is the lowest during night. Most respondents filled out the questionnaire during the afternoon between 12.00-18.00 though the two most active hours fell before noon between 10.00-11.00 and 11.00-12.00 . In the future these experiences can be used to a more effective media plan.

Figure 4. Intensity of completion of online surveys during the two-week CAWI period



The overall response rate was also extremely high. More than 99% of the farmers filled the questionnaire by the deadline, which was more than planned before the data collection.

The respondents who filled out online tend to be younger and more educated than the ones who waited for surveyors to come.

Figure 5. Age of CAWI and CAPI respondents

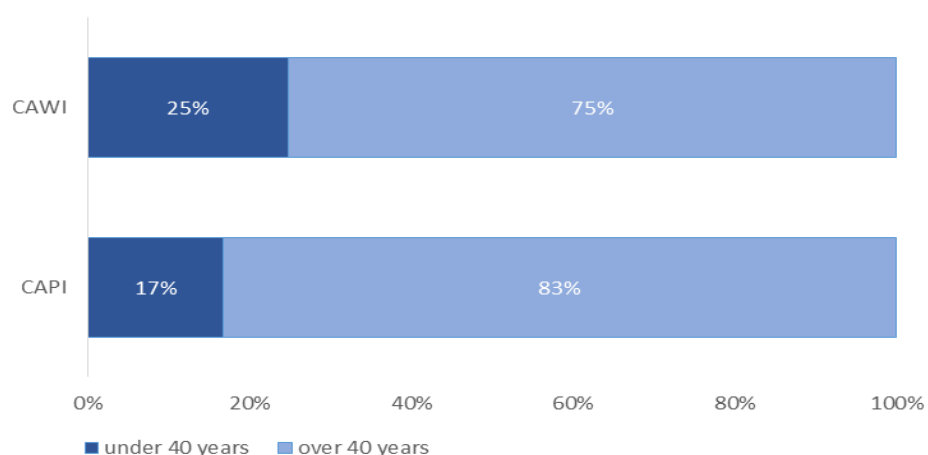
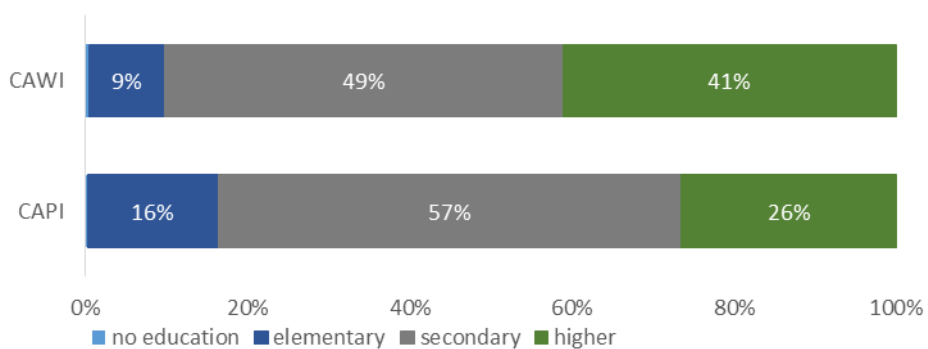


Figure 6. Education of CAWI and CAPI respondents

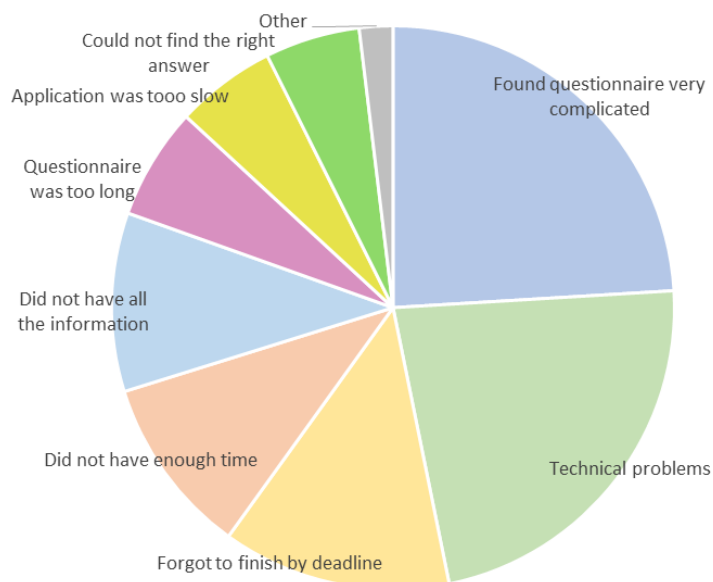


Moreover the above mentioned facts, respondents of CAWI period asked feedback on publication in a much higher share than respondents of the CAPI. 75% of the first group wanted to be informed on the released publication and get to know the results of the data collection. In case of the other group it was only 28%. So it seems that CAWI respondents like to have more interaction, like to be involved more and consider the survey results that useful.

After the CAWI period a questionnaire were designed to get some information why half of the farmers did not completed the questionnaire online. Most respondents did not fill the questionnaire because they found that complicated and difficult. But 23% of them only had forgotten the deadline or found the period too short. These percentage can be lowered by efficient email communication.

The next figure shows all the other reasons of not finishing the questionnaire on-line. Among all the reasons the technical one that can not be improved by HCSO. Less complicated questions, or shorter questionnaire and carefully planned reminders can help to increase share of CAWI.

Figure 7. Reasons of not finishing the questionnaire



10% of farmers who did not even log in the online application said that they did not know about the census. The ones who knew about the data collection got this information mostly by mail. And though 73% of them had internet connection 82% of them said that they ask for consultant help to apply for subsidies. It remains a challenge to educate these farmers that they would be able to fill questionnaires and other forms online by themselves.

Figure 8. Reasons of not starting the questionnaire



These analysis of the two period help to as prepare for the Agricultural Census 2020, in connection that the work has started already in Hungary. We would like to use all the experiences, lessons learned and best practices originated from this Orchard Survey, as Agricultural Census will involve much higher number of farmers. And it can be only cost efficient if more farmers fill the questionnaire online than during the last Farm Structure Survey, when it was only 16%.

As a summary during these couple of months as a by-product of the data collection official statistics on agriculture got higher public and media attention. More users became aware of the available agricultural statistics, and different data collections on this field. It turned out it is important many of them to be engaged and to be involved more into the data collection. It helps if data respondents are data users at the same time, because this also increase their commitment.