Extended AbstractPlease do not add your name or affiliation

Paper/Poster Title	An empirical analysis of purchases of soft fruit in Scotland
	Scotland

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Abstract 200 words max

The main implication of the food miles indicator, with all its limitations, is that in order to protect the environment, consumers should purchase food that is local and in season. For that purpose, evidence about how good or bad -in terms of locality and seasonality- the actual purchase of food are, is needed. This paper analyses the purchases of soft fruits in Scotland, which not only have marked production seasonality but also are imported from the rest of the UK and from abroad during the entire year. For the analysis we used the Kantar Worldpanel dataset for the period 2013 until 2021 and three seasonality models were estimated: (1) dummy variable model; (2) the trigonometric seasonal model and (3) the sawtooth seasonal model. In terms of locality, the results indicate that Scottish soft fruit covers a relatively small segment of the market, and therefore, eating just local soft fruit would imply to constraint the consumption of soft fruit, even during the Scottish produce season. As regards the seasonality, the purchases of soft fruit are highly seasonal despite the possibility of getting out-of-season imported soft fruit. The analysis also considered whether exiting the European Union had affected the observed seasonal patterns.

Keywords	Demand for soft fruits, Scotland, Seasonality
JEL Code	Q110 Agriculture: Aggregate Supply and Demand Analysis;
	Prices

Introduction 100 – 250 words

One of the implications of the food miles indicator is that in order to attain environmental sustainability consumers should purchase food that is local and in season. Whilst this may only be a partial truth, evidence about how good or bad -in terms of locality and seasonality- the actual food purchases are, is always needed. This is because it provides evidence of self-sufficiency, on the reliance on imports to achieve food security or nutritional goals; all aspects that are important for Scotland as numerous policy reports indicate. This paper concentrates on the analysis of purchases of soft fruits in Scotland, which are the main fruit grown in Scotland and not only have marked production seasonality but also are imported from the rest of the UK and from abroad during the entire year.

Methodology 100 – 250 words

For the analysis we used the Kantar Worldpanel dataset for the period 2013 until 2021. Time series were created using it and produced 117 observations of 4-week "months". The series were broken by supermarket, different soft fruits and four origins: Scottish, Rest of the UK, EU origin and Rest of the world. The fact that the data were broken down by origin meant that we could evaluate the importance of local produce. In terms



of seasonality, for comparison purposes three seasonality models were estimated: (1) dummy variable model; (2) the trigonometric seasonal model and (3) the sawtooth seasonal model. The analysis also considered whether exiting the European Union affected the seasonal patterns. This was done using dummy variables for different periods (e.g., after 2021).

Results 100 – 250 words

The results indicate that Scottish soft fruit covers a relatively small segment of the market, and this is something that has not changed from previous analyses. In this sense, eating just local soft fruit would imply to constraint the consumption of soft fruit, even during the Scottish produce season. As regards the seasonality, the purchases of soft fruit are highly seasonal despite the possibility of getting out-of-season imported soft fruit. However, there are important differences in the case of strawberries and raspberries (the two major soft fruit produce in Scotland); whilst on the former there is an increase trend, the seasonality was basically the same, in the latter, imports of raspberries reduced to some extent the seasonality. Brexit was not found important to affect the trend and the seasonality.

Discussion and Conclusion

100 - 250 words

The data indicate that soft fruit imports are an important part of the food supply of Scotland and it is unlikely that local fruits will have the capacity of replacing imported produce. It is interesting that the raspberry data show a reduction of the seasonality patterns due to imports. In the case of strawberries, although the seasonality remained unaltered during the period of study, curiously the share of EU imports grew since 2019 despite Brexit in detriment of the Rest of the UK and the world origins.

