

Demand Analysis of Vegetables by Intended Purposes

Shigenori KOBAYASHI

While demands for vegetables are increasingly diversified, it is inevitable that the future promotion of domestic vegetable production relies on accurate perspectives and procedures on movements in vegetable demand determined by the intended purposes of the vegetables, which can be classified in three groups; for household consumption, for food manufacturing, and for business and services (catering and ready-to-eat meals industry). The objective of this research was to understand changes in demand for vegetables according to certain types of items and their intended purposes, plus whether they are domestically produced or imported. The research was also intended for clarifying feedback from consumers and users on both domestically produced and imported vegetables as well as the aspect of distribution channels.

The methods used for the research are explained below. With reference to the food balance sheet (conversion of perishable items), estimations of vegetable demands for intended purposes for the year 2000 were made according to major items and whether they are domestically produced or imported. Also, regarding vegetables as gross food, demands were categorized in three groups of their intended purposes; household consumption, food manufacturing, and business and services. Further

more, best possible classification into two groups(; catering and ready-to-eat meals) was made for the business and service purposes.

The estimation of the vegetable demand for household consumption was made mainly with reference to the amounts of fresh vegetables purchased, which were acquired from the “Annual Report on the Family Income and Expenditure Survey”. For the estimation of the vegetable demand for food manufacturing and business and service purposes, a questionnaire regarding types of items, domestic products and imported products, was given to those who are involved in fruit and vegetable processing and the catering and ready-to-eat meals industry and the findings were applied with the necessary factors which were added to the existing statistics in order to enable the estimation. In addition, an interview survey was implemented with the aim of understanding further supplementary demand factors as well as the aspect of distribution channels.

The following are two interim results acquired through the research.

- (1) The overall vegetable demand by intended purposes for 2000 was estimated, when regarding vegetables as gross food, by applying the existing statistics (Fig.1).

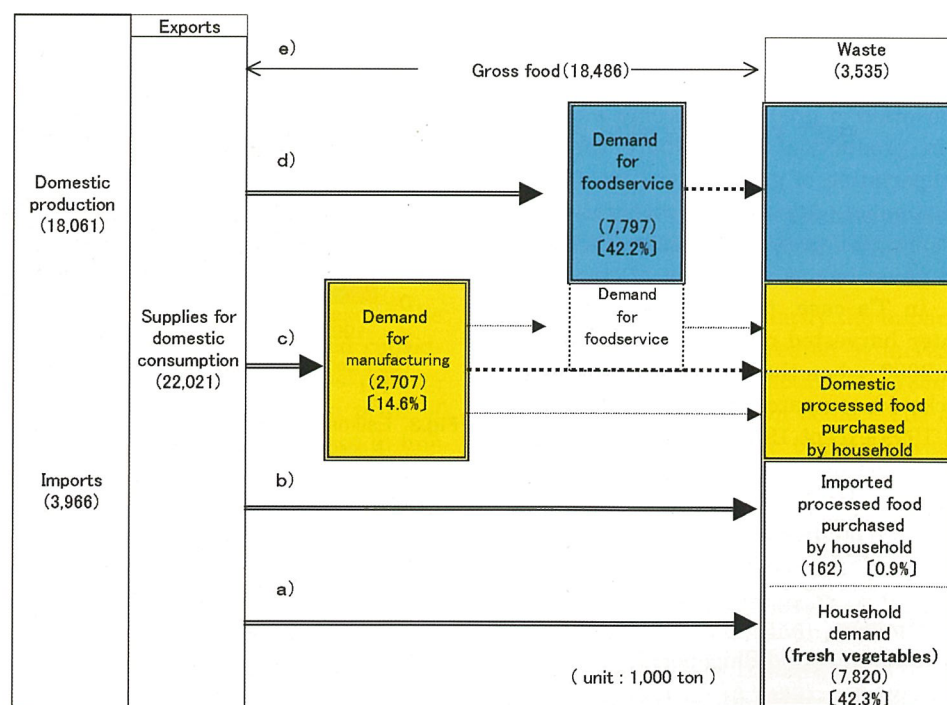


Fig.1. An Estimated Demand for Vegetables by Intended Purposes (2000)

a) indicates the amount of vegetables demanded by family households. They are defined as “either domestically produced or imported raw ingredients distributed from the production point to the end consumer with no modification en route”, thus, the definition excludes frozen vegetables and precut vegetables though it includes home produced vegetables.

b) indicates the amount of imported processed items, which are not for further processing or for business and service purposes but purchased by households. It should be noted that only frozen vegetables are accounted for in the estimation, thus, it is underestimated.

c) indicates the amount of vegetables required for food manufacturing. The estimation of the amount used in 2000 was made by applying the amount acquired from a past survey on fruit and vegetable processing factories plus the amount of precut vegetables purchased, which was estimated based on the previously mentioned “Annual Report on the Family Income and Expenditure Survey”.

d) indicates the amount of vegetables demanded for business and service purposes and the figure was calculated by subtracting a) ~ c) from e) (gross food) ; (d)=e)-a)-b)-c)-waste).

Consequently, the proportional representation of the above estimations of vegetable demands by intended purposes in terms of gross food is 44% for household consumption, 15% for food manufacturing and 41% for business and services.

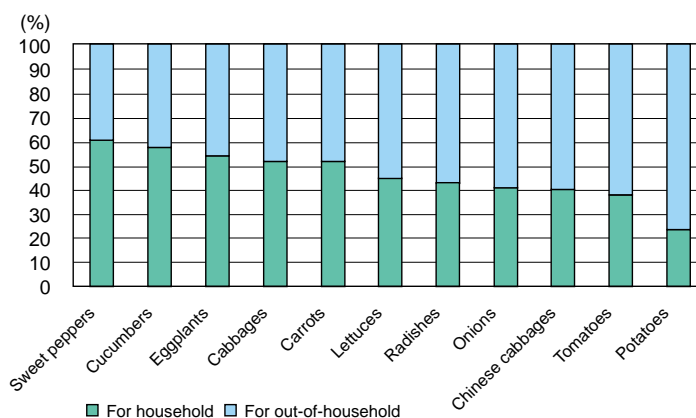


Fig.2. Share of Demand for Major Vegetables by Household (2000)

(2) In addition, the rate of the vegetable demand of major items for household consumption was calculated in comparison with the overall demand for the other purposes (Fig.2). This estimation was also made by the application of existing statistics. The focus of future research will be further clarification of movements in vegetable demands of certain types of items and their intended purposes by means of dividing the overall vegetable demands for all purposes, except for household consumption, into two groups of food manufacturing purposes, and business and service purposes, based on the findings acquired from the separately implemented questionnaire.

Research members

Shigenori Kobayashi, Toshitaka Katsuki and Koichi Sato

The Price formation of Voluntarily Marketed Rice and its competition with non-Orderly Marketed Rice

Tetsuro YAKUSHIJI

The competitiveness of Voluntarily Marketed Rice (VMR) with non-Orderly Marketed Rice (non-OMR) after 1995 when the Food Control Law gave way to the Food Law has been analyzed, with attention given to the price formation system of VMR.

The distribution price of VMR in Japan is decided by a tender system between shippers (unions of farmers cooperatives) as sellers, and wholesalers as buyers. Up until 1997, the price had been, in most cases, decided in accordance with a floor price, set under the “limited price range system” of tender. However, since this system was abolished in 1998, the price formation has been changed to become more flexible, reflecting supply/demand factors more sensitively.

While the “price requesting system” of tender was newly introduced after the abolishment,

this has weakened VMR’s competitiveness with non-OMR, due to higher prices requested by VMR shippers, irrespective of the real market situation.

Demand for VMR from wholesalers becomes more sensitive to its own price after 1998 (Table 1). Moreover, the sales of VMR are being strongly influenced by the price of non-OMR and are confronting strong competition, with its rapid increase in distribution.

In a calculation, based on a model reflecting a situation whereby the non-OMR price is connected to VMR price, demand for VMR from wholesalers increases 0.82% in the case of 1% fall in VMR price (Table 2). The producer price falls 0.28%, but it is a considerably smaller drop than compared to the case whereby an increase in demand is not taken into consideration (1.1% down) (Table 3).