

Table 1. Price Elasticities

		i					
		1	2	3	4	5	6
j	1	-1.860	0.117	3.503	2.825	1.727	2.550
	2	-0.074	-0.181	-0.085	-0.069	-0.042	-0.062
	3	0.419	0.016	-5.177	0.388	0.237	0.350
	4	0.151	0.006	0.173	-4.441	0.085	0.126
	5	0.117	0.004	0.134	0.108	-2.727	0.097
	6	0.139	0.005	0.160	0.129	0.079	-3.999
mean p_{ki}		164.1	189.6	193.8	178.8	147.3	156.4
mean q_{ki}		129.5	13.0	12.7	6.4	12.0	7.8

Notes: The Own-and cross-price elasticities were computed using the estimated coefficients and sample means. Figures in the 6 x 6 matrix for price elasticities are interpreted as the percentage change in item i's demand associated with a 1 percent change in item j's price.

"mean p_{ki} " is item i's average price (yen/liter).

"mean q_{ki} " is item i's average quantity sold (liter/1,000 customers).

The most popular (based on market share) items were selected from each of the milk and reconstituted milk categories until the combined sales values reach over two-thirds of the category's total sales values. This resulted in the following two items for fresh milk (Item 1 and 2) and four items for reconstituted milk (Item 2,3, and 6).

"Item 1" is the supermarket's private label whole milk (3.5% fat contents, 1 liter),

"Item 2" is the supermarket's private label whole milk from Hokkaido (3.7% fat content, 1 liter).

"Item 3" is national label reconstituted low-fat milk with more calcium (1 liter),

"Item 4" is national label reconstituted milk with more calcium and iron (1 liter),

"Item 5" is national label reconstituted skim milk with more calcium (1 liter),

"Item 6" is national label reconstituted chocolate milk (1 liter).

Table 2. Price-Cost Margin Ratios

Item	$\theta = -1$	$\theta = 0$	$\theta = 1$
1	0.382	0.538	0.905
2	3.133	5.532	23.616
3	0.110	0.193	0.789
4	0.127	0.225	0.978
5	0.207	0.367	1.600
6	0.141	0.250	1.084

Notes: The PCM values were estimated for the three cases: $\theta=0$ (the Bertrand case), $\theta=1$ (a price-matching case), and $\theta=-1$ (a non-collusive case), where θ is a indicator of market competitiveness.

Securing a Variety of Core Farmers and Structure of Regional Agriculture

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In this study the researcher took up a theme of new entrants to agricultural business (new entrants) from non-farming households, which has recently been focused on as a variation in the structures of agriculture, and implemented research of support measures (such as information supply, advice system, assistance to secure farmland and technical training, etc.) that are necessary for analysis of agricultural business entrance tendencies and their development of management.

Taking opportunities of applicants' (a) Determination of starting business, (b) Actual start-up of business and (c) Development of business, new entrants' business can be divided to three stages of (1) Preparation stage, (2) Starting stage and (3) Stabilized stage (Fig. 1). Concerning support at the preparation stage, supporting system to start agricultural business was prepared and chances to acquire management resources are offered in 90s. However, new entrants who become trainees in their preparation stages have potential problems in corresponding to accidents, etc. and there are cases of troubles, as their position is outside the scope of labor protection laws. On the other hand, business supporters

also are facing problems as social welfare, excluding industrial injury insurance, was not enough for trainees, therefore measures to farmers whose participation to social welfare system is lower than other business fields must be taken immediately (Table 1). In future, preparation of high quality training to meets needs of trainees are much expected and setting up of training programs and risk management such as social welfare is required.

Concerning support after the starting stage, supporting system such as farmland leasing using farmland holding rationalizing business, and funds for farm facilities are created recently but they are not enough for the support to the people in the preparation stage. For stable management of new entrants at early points, continuing political supports such as farm business management funds, procurement of farm land, assist of agricultural technologies are required. And, in order for new entrants to gain management resources, informal support of management and living from local farmers and local people who live near the applicants are also important.

Related publications

Egawa, A. (1999) The Situation and Problems of Municipalities' Support of New Comers, *Japanese Journal of Farm Management* 37 (1):47-50.

Egawa, A. (2000) New Entrants to Agriculture from Non-Farming Households, *Japanese Agriculture* 215: 1-142.

Egawa, A. (2000) The Situation and Problems of Holding Farmland by New Entrants,

Agriculture and Economics 66 (5): 22-29.

Egawa, A. (2002) The Startup and Supports Problems of New Entrants to Agriculture from Non-Farming Households, *Dairyman* 52 (1): 46-47.

Egawa, A. (2002) A New Stage of Development of Core Farmers for Japanese Agriculture, *Farming Japan* 36 (2): 46-49.

Preparation Stages	Preparatory period for start-up	Start-up period	Stabilized period
Duration	1 - 3 Years	3 - 5 Years	After 3 - 5 Years

Determination of starting business	Actual start-up	Management development
New entrants	Trainee	Farmers
Main contents of support for start-up		
1. Counselling for the entrants to agriculture	◆ The support project and guidance for the new entrants	
2. Farmland		◆ Farmland holding rationalization business (Farmland leasing) ◆ Provision of information and assistance for the farmland acquisition by Agriculture Committee, etc.
3. Agricultural technics	◆ School for the farming industry entrance preparation ◆ Foundation of training farms (Projects of the smooth employment process in Agriculture, etc.) ◆ Training at agricultural public cooperation ◆ Training at Agricultural legal person and aggressive farmers	
4. Funds	◆ Agricultural training fund ← ◆ Fund for the expenses required at entering farming industry Start-up fund →	◆ Fund for farming facilities and other necessary items

Fig. 1. Startup Stage and Startup Support

Table 1. Situation of Insuring Agricultural Trainee for Social Security by Supporter

(Unit; %)

	The percentage of trainees participating social security designed for them	The details in percentage of trainees who joined insurance schemes			
		Workers' accident compensation insurance	Employment insurance	Health care insurance	Employees' pension
Farming family	38.7	69.4	16.7	27.8	2.8
Agricultural Production Legal Person	73.3	96.8	49.2	36.5	28.6
Municipalities, Public agricultural cooperatives, Japan Agricultural Cooperatives	45.7	80.0	46.7	46.7	26.7

Note: Egawa, A. (2001) The Survey Results of Applicants for New Entry to Agriculture from non-farming household, National Chamber of Agriculture, 42p.