Analysis on Recent US Agricultural Insurance Programs: Participation and Indemnity

Kunihisa YOSHII

In 2002, the insurable acreage of US agricultural insurance programs continued to increase, and the percent of participation reached approximately eighty percent in response to higher subsidies provided by the Agricultural Risk Protection Act of 2000. Fig. 1 shows that the increase of total insurable acreage depends on the participation of revenue insurance programs, while the acreage insured by crop insurance programs decreased because of a sharp decline of Catastrophic Coverage (CAT).

As for the topic of participation, farmers have purchased higher levels of protection, especially higher coverage levels of revenue insurance policies. Over 50 percent of the insurable acreage in 2002 was insured at 70 percent coverage or higher compared to under 10 percent in 1998. Fig. 2 illustrates that the 70 percent coverage or higher for revenue insurance programs accounts for over 75 percent in 2002, compared to 22 percent in 1988.

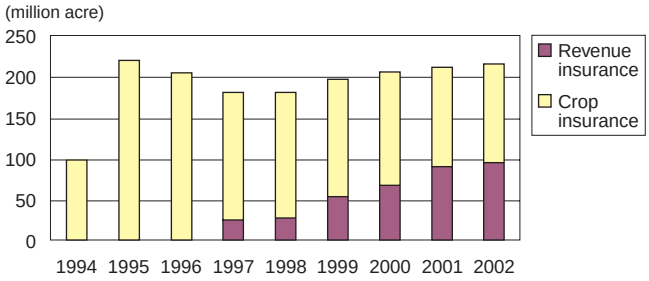

Fig. 1. Insurable Acreage of US Agricultural Insurance Programs
Note: USDA/FCIC, Summary of Business as of 2003/3/31.

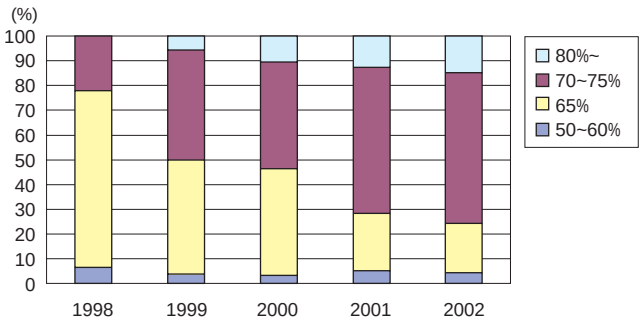

Fig. 2. Insurable Acreage by Coverage Level (Revenue Insurance)
Note: USDA/FCIC, Summary of Business as of 2003/3/31.

The acreage insured by CRC (Crop Revenue Coverage) policies dropped and instead, the insurable acreage of RA (Revenue Assurance) rapidly increased in 2002. The reason is that the CRC premium costs are generally more expensive than RA, even if the protection levels of both programs are the same.

This shows the price/premium elasticity of insurance demand is not low, although many previous studies suggested that the demand for crop insurance was inelastic. Those studies dealt with the old crop insurance programs prior to the 1994 Crop Insurance Reform Act and the introduction of revenue insurance programs.

A result worthy of our attention is that if the premiums of 65 percent coverage in 2002 are lower than in 2001, most farmers would not purchase the same 65 percent coverage to save money, but purchase the higher coverage, for example 75 percent coverage, to obtain strong enough protection.

Due to excessive drought and the highest ever insurance liabilities, total indemnities for 2002 amounted to over $4 billion and were the largest on record. The Loss-Ratio (indemnities divided by premiums) for 2002 was 1.35. The ratio of revenue insurance programs was 1.54 and was larger than crop insurance, which was 1.17. We think one of the reasons for the large payments by revenue insurance policies is that indemnities based on the Replacement Coverage of CRC and RA were paid because not only have crop yields declined, but also prices rose in the 2002 harvest season.

Study on Systematizing Food, Agriculture and Rural Area Policies

Kunihisa YOSHII

We tried to systematize the food, agriculture, and rural area policies of the Ministry of Agriculture, Forestry and Fisheries (MAFF) with the intention of specifying clearly linkages between ends and means among the various policies. As a result, we formulated a "Policy Hierarchy" which is three tiered (goals, objectives, and policies). To put it concretely, at first, we set four basic principles defined in the Basic Law on Food, Agriculture and Rural Areas as the goals of policies, and then we divided each goal into lower objectives which contribute to that goal. In addition, we classified various specific policies according to the objectives. The policies can be evaluated by the degree to which they achieve the objectives. At the same time, we devised an outcome indicator for each objective so that the degree of

Table 1. Food, Agriculture and Rural Area Policy Hierarchy

Goals	Objectives
1 Securing food safety and food confidence	1) Securing food safety 2) Securing food confidence
2 Securing stable food supply	1) Promoting food education and better dietary patterns 2) Securing stable imports of agricultural products and food
3 Sustainable agricultural development and sound development of food-industry	1) Securing productive farmland 2) Improving agricultural and food-industrial productivity by constructing and effectively utilizing agricultural production facilities 2-1) Improving agricultural productivity 2-2) Improving food-industry productivity 3) Securing and fostering a workforce to play a major role in effective and stable farm management 4) Stabilizing farm management 5) Controlling agricultural production and stabilizing prices of agricultural products 6) Developing and promoting technology 6-1) Developing and promoting agricultural technology 6-2) Developing food-industrial technology
4 Development of rural areas	1) Developing and maintaining rural economy 2) Improving living infrastructure in rural areas
5 Maintenance and fulfillment of the multifunctional roles of agriculture	1) Maintaining and promoting the natural cyclical function of agriculture
6 Others	

achievement of the objectives could be measured. We proposed the policy hierarchy as shown in Table 1 and the outcome indicators to the Administrative Departments of MAFF in order that they may conduct policy evaluation more efficiently and effectively.

Research Members

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Analysis of Fruit Prices and Distribution Costs: Focusing on the Case of *Unsyu* Mandarins

Toshitaka KATSUKI

Recently it has been pointed out that fruit distribution costs are increasing although the farmers' received prices remain low. In accounting for such circumstances, the purpose of this research is to make clear the following. (1) in which crops are the distribution costs increasing? (2) which items of cost are increasing in such crops? and (3) why are they increasing?

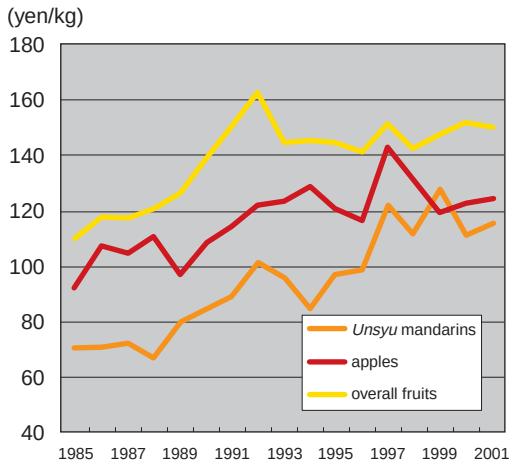

Fig. 1. Changes of Differential Between Consumer Price and Wholesale Price by Major Fruits

Firstly, the result indicated was that the differential between the consumer price and wholesale price of *Unsyu* mandarins is increasing, a trend which stands out clearly from others. As shown in Fig. 1 the differential of *Unsyu* mandarins has been increasing on the whole since the second half of the 1980s to recent years. Also the wholesale price of *Unsyu* mandarins has been falling since 1991, after rising greatly. On the other hand, the differential of fruits overall was almost constant after around 1993. Also, the average wholesale price of fruits overall remained almost constant during the same period. The phenomenon mentioned above is peculiar to *Unsyu* mandarins.

Second, taking into account these characteristics of *Unsyu* mandarins, the research examines the changes of their retail and consumption conditions. Until around 1985 *Unsyu* mandarins were regarded as the representative "cheap and popular" fruit. However, the *Unsyu* mandarins' share of fruits overall in household purchase volume dropped from 26% in 1985 to less than 20% in 1996, and the volume of *Unsyu* mandarins of one purchase per