

As Tohoku beef and dairy producers rush to upgrade their operations in the face of increasing foreign competition, interest in Canadian breeding products and technology has heightened. Canadian dehydrated alfalfa producers should also see gains as farmers in the region seek more cost-effective feed sources.

With considerable agricultural and biotechnology research underway in Tohoku, possibilities exist for co-operative projects between the Canadian and Tohoku research communities.

## 2 Introduction

### Economic History

Tohoku rose to prominence through the exploits of the warrior clan known as the northern Fujiwara, whose capital city, Hiraizumi, rivalled Kyoto in its splendour. During the 17th century, the island of Sado supplied gold and silver for the Tokugawa regime.

As the feudal economy developed through the 17th and 18th centuries, Tohoku's relative isolation was used to create independent power bases beyond the reach of the Kanto political centre.

It was not until the late feudal period — when the country's southern agricultural areas could no longer support Japan's growing population — that Tohoku began to develop as an economic entity. Today, the region's paddies account for 32 per cent of Japan's rice crop.

Sendai's importance as a commercial and administrative centre was established as early as the 1600s. Sitting astride major transportation routes to the south, and seat of the regionally powerful Date clan, Sendai was a natural beneficiary of the growing agricultural trade.

Following WWII, political and land reforms enfranchised millions of agricultural smallholders who have voted en bloc for the ruling Liberal Democratic party since it was founded in 1955. Tohoku's loyalty is rewarded by considerable political largesse. Infrastructural spending is lavish; inefficient agricultural industries are propped up by massive subsidies. Without the government's generosity, the region's economy would not be as healthy as it is.

### Demographics

By 1989, Tohoku was home to slightly over 12 million people, about 10 per cent of Japan's total population. While there has been an exodus of workers seeking employment in more metropolitan centres, the region's population has remained stable over the last decade.

Local governments are trying hard to stem the flow of workers. To date, only Miyagi prefecture (home of Sendai) has met with any success. Nearly 70 per cent of Miyagi's population is of working age (15 to 64), while 11.3 per cent of all residents are over 65. These figures compare with national averages.

With nearly 2.5 million residents, Niigata is the most populous Tohoku prefecture. It is followed closely by Miyagi, whose population is just short of 2.25 million. With 889 138 residents, Sendai's population is almost double that of any other regional centre, the notable exception being Niigata City which is home to 486 424 people. The typical Tohoku household averages between 3 and 3.5 persons, slightly higher than the national average of just under 3 people.

In general, wages in Tohoku are approximately 75 per cent of the national average, but only 65 per cent in the manufacturing sector. Workers in Miyagi prefecture fare somewhat better. Here, general wages are 87 per cent of the national average, and fall to 71 per cent in the manufacturing sector.

With an annual per capita income of approximately ¥1.2 million, Sendai ranked sixth among major Japanese cities in 1988 — well behind Tokyo (¥1.7 million), but ahead of Sapporo. In the same year, Miyagi's prefectural per capita income stood at just over ¥2 million, which compared favourably to other major prefectures such as Fukuoka and Hiroshima, but fell below that of Tokyo, Osaka and their surrounding prefectures.

As consumer prices in the region have been slow to rise — especially for food and utilities — Tohoku residents enjoy an advantage over metropolitan areas in terms of disposable income and savings. In 1988, the average monthly income for a Miyagi household was estimated at ¥418 380, while expenditures averaged ¥281 821.

As well, land prices and housing costs are approximately one-third lower in Tohoku than in Tokyo. For example, a 110-m<sup>2</sup> home within 30 minutes of downtown Sendai costs approximately ¥31 million. By contrast, an 80-m<sup>2</sup> home within 80 minutes of Tokyo's business core would cost approximately ¥126 million.