

## **Development of a New Type of Wheat**

### **The World's First "Sweet Wheat"**

By using DNA Marker Assisted Selection <sup>(\*)</sup> in conjunction with traditional crossbreeding techniques, the National Agricultural Research Center for Tohoku Region (Director-General: Hiroshi Seino) and Nippon Flour Mills (President: Wataru Aosaki) have jointly developed a flavorful, sweet type of wheat. Although sweet corn is well known and widely used, no sweet varieties of other grains such as wheat or barley are available. However, we have now produced "Sweet Wheat" which is high in maltose and other sugars.

This is the first time that a sweet wheat variety has been developed anywhere in the world. The flour from Sweet Wheat confers a sweet, pleasant and unique taste to breads and cakes. It is expected that these characteristics will be useful in the development of new food products.

"Sweet Wheat" was developed using DNA Marker Assisted Selection, and is not reliant on transgenic technology. Marker Assisted Selection will also be used to accelerate the development of commercial Sweet Wheat varieties.

We intend to make every effort to bring new food products made from Sweet wheat to the market in the near future.

<sup>(\*)</sup> DNA Marker Assisted Selection technology:

Technology that is used to select targeted individuals from populations of living organisms such as plants, animals or bacteria, based on genomic sequence information

**[Research framework]**

Director of Research Promotion	Director-General of National Agricultural Research Center for Tohoku Region	Hiroshi Seino
Research Supervisor	Subteam Leader, Noodle Wheat Research Subteam, National Agricultural Research Center for Tohoku Region	Toshiki Nakamura
Research Supervisor	General Manager of Grain Science Laboratory, Nippon Flour Mills Central Laboratory	Yoichi Kurimoto
Research Supervisor	Bioscience Laboratory, Nippon Flour Mills Central Laboratory	Tomoya Shinbata



▲ National Agricultural Research Center for Tohoku Region (headquarter)



▲ Nippon Flour Mills Central Laboratory