

SERIES 13

KYUSHU NATIONAL AGRICULTURAL EXPERIMENT STATION

Established : 1932

Location : Izumi, Chikugo City, Fukuoka Prefecture

Director : Naoyuki YOSHIKAWA

Total Number of Employees : 345 (Research personnel: 161)

Outline of Work :

Kyushu, the southernmost island of Japan, is warm and wet in climate. Its high temperature and plenty rainfall sometimes cause the occurrence of diseases and insect pests to crops as well as climatic disasters, resulting in serious damages to crops.

Paddy fields stretch in the northern part of the island where productivity is being stepped up recently after an elapse of stagnation for many years. In southern Kyushu, yields of various crops including rice are still generally low and unstable due to poor soil condition and to frequent attacks of typhoon.

Because farming in this district is diversified into food and industrial crops, horticulture, animal industry and sericulture, farm management is versatile and technically extensive, relying more upon manual labor rather than on machineries. In view of its importance of the district as a food producing area in the western part of Japan, this station puts stress on researches and experiments for developing techniques to intensify the integrated productivity of both paddy and upland fields in the district as well as to utilize for the purpose of animal industry the unutilized grassland distributed on the slopes of volcanic mountains and on elevated plateaus. Current researches and experiments are conducted on improvement of productivity of crops and livestock, labor saving through farm mechanization both in paddy and upland fields and maintenance and management of grassland. The station also conducts the introduction and cultivation of special crops such as sugar cane which is expected to be suited for warmer parts of the district.

Recent Principal Research Findings :

Development of new rice varieties of "*Reiho*" and "*Hoyoku*", lodging- and disease-resistant, high-yielding and highly responsive to fertilizers.

Ecology of the white-back planthopper (*Sogatia furcifera* Horvath) and the brown planthopper (*Nilaparvata lugens* Stal), with special reference to their outbreaks.

Epidemiology of the bacterial leaf blight of rice (*Xanthomonas oryzae*).

Transmission of plant viruses by aphids.

Genesis and classification of main genetic soil types in Japan.

Variation of the body temperature, pulse and respiration rate of Holstein cows under warm condition.

Flowering, seed setting and self- and cross-incompatibility in the varieties of sweet potatoes.

Publications :

Bulletin of the Kyushu Agricultural Experiment Station. (In Japanese with English summary, quarterly, free exchange)

Kyushu Agricultural Research. (In Japanese, annual)

Organization and Main Research Themes :

- Director—
- Research Planning and Coordination Division (3 sections)
 - General Administration Division (2 sections and 2 branches)
 - First Crop Division (7 laboratories and 1 section)—Improvement of varieties and cultivation method of rice, wheat and barley; Weed control in paddy fields by use of herbicides; Mechanization of rice cultivation.
 - Second Crop Division (5 laboratories) (Nishigoshi-machi, Kikuchi-gun, Kumamoto Prefecture)—Improvement of varieties and cultivation method of soybeans, rape, sweet potatoes and other upland crops; Weed control of upland crops by use of herbicides; Production and distribution as breeding materials of sweet potatoes by the induction of artificial flowering (Ibusuki City, Kagoshima Prefecture); Cultivation of sugar canes and other special crops (Tanegashima, Kagoshima Prefecture).
 - Upland Farming Division (7 laboratories and 1 section) (Miyakonojo City, Miyazaki Prefecture)—Mechanized cultivation of upland crops; Control of natural disasters and management of upland crops under warm climate; Feeding and management of livestock.
 - First Environment Division (6 laboratories) (Chikugo City, Fukuoka Prefecture)—Ecology and control measures of diseases of rice and other crops; Ecology, forecasting and control measures of insects; Macro- and micro-climatology for agriculture.
 - Second Environment Division (4 laboratories) (Chikugo City, Fukuoka Prefecture)—Genesis and classification of soils; Improvement and fertilization of paddy field soils; Improvement and fertilization of upland and volcanic ash soils (Nishigoshi-machi, Kikuchi-gun, Kumamoto Prefecture).
 - Livestock Division (2 laboratories and 1 section) (Nishigoshi-machi Kikuchi-gun, Kumamoto Prefecture)—Breeding, feeding and management of dairy and beef cattle and swine.
 - Grassland Division (3 laboratories) (Nishigoshi-machi, Kikuchi-gun, Kumamoto Prefecture)—Improvement of varieties and cultivation method of forage crops and management of grassland.
 - Farm Management Division (2 laboratories) (Nishigoshi-machi, Kikuchi-gun, Kumamoto Prefecture)—Regional difference in the agriculture of Kyushu; Diversification and reorganization of farm type.