

2023



Outline



Saitama Pref. mascot KOBATON

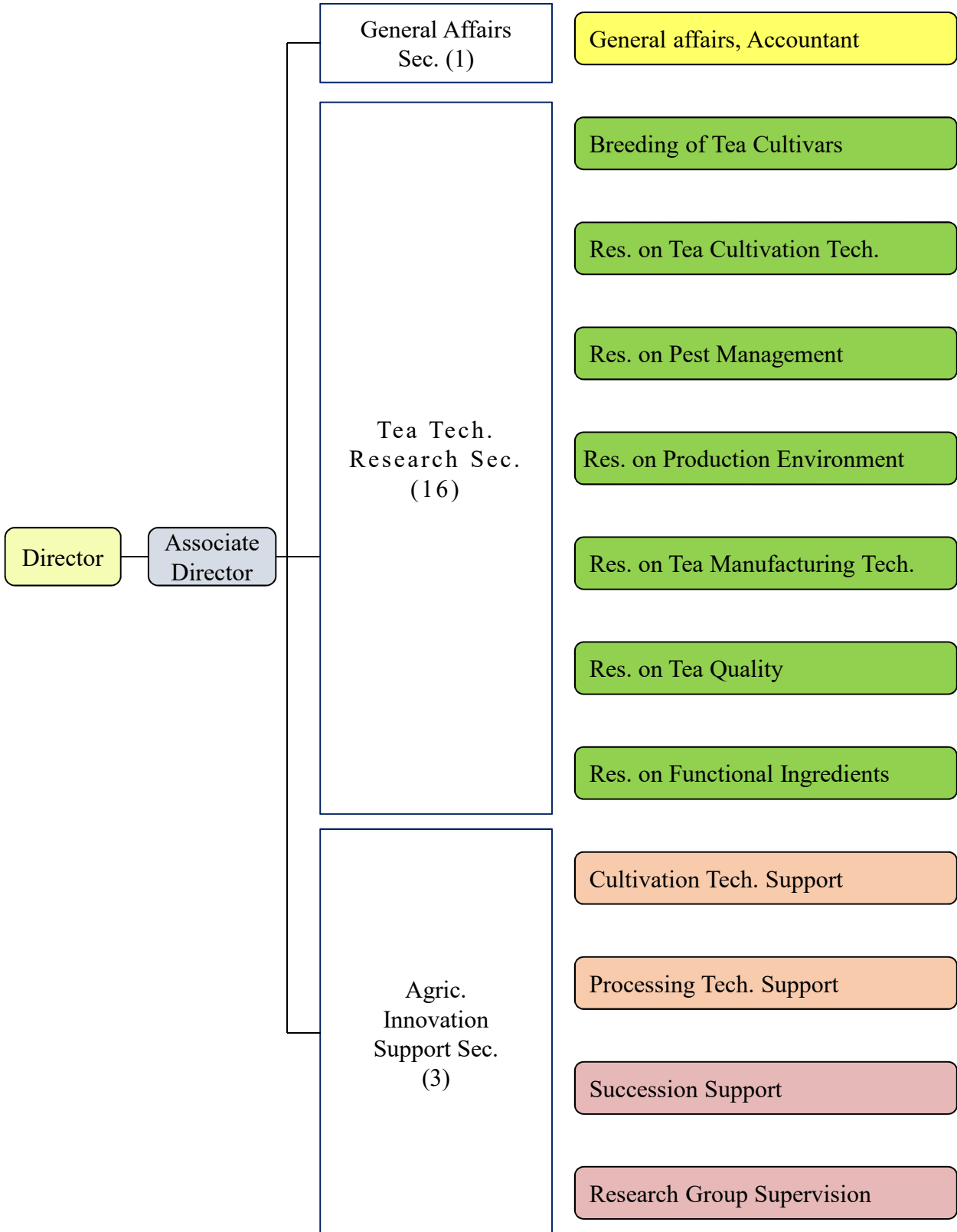


Saitama Tea Research Institute

埼玉県茶業研究所

Organization

As of April 1, 2023



Business Description

◇ Tea Industry Technology Research

Research on cultivation

(1) Breeding superior cultivars

Since the tea cultivation area in Saitama is located at the northern limit of tea cultivation in Japan, we have been working on breeding high-quality and high-yielding tea cultivars with less risk of weather disasters such as cold and dry weather damage. We have bred 11 varieties so far, including "Oku-Haruka," with characteristics of cherry leaf-like aroma, which was registered as a tea cultivar in March 2015.

We have also bred the early maturing and high-yielding cultivar "Sayama-Akari", which was registered as the 11th variety on January 26, 2021.

Tea breeding



Breeding superior cultivars through artificial crossings



The new cultivar "Sayama-Akari"

(2) Cultivation techniques of tea plants

We have developed cultivation techniques to avoid damage from cold drought and late frost. In recent years, we have been focusing on the development of cultivation techniques to cope with abnormal weather conditions and to avoid late frost damage. We have also been conducting research and providing technical advice on how to cope with abnormal weather, how to effectively renew old tea fields, and how to improve planting using cell (plug) formed saplings.



Cell (plug) formed saplings

(3) Tea growth monitoring and meteorological observation

In the tea growth monitoring field at our institute, we survey the growth and yield status, as well as sprouting time or plucking time. In this way, we have accumulated basic data over a long period of time. These data will be used to analyze the actual damage caused by cold weather and late frost and to take measures to prevent damage, and will be provided to relevant organizations as needed.



Tea growth monitoring field

(4) Investigation in production environment

a. Research on pest control

This includes the development of methods for managing pests; mulberry scale *Pseudaulacaspis pentagona* and tea spiny whitefly *Aleurocanthus camelliae*, which are difficult to control and have rapidly increased in recent years. It also includes the development of pesticides usage on tea fields for overseas export, examination of the effectiveness of new pesticides, and fertilizing methods.

b. Pest occurrence investigation and providing information of pest forecasting

We have set up a pest occurrence investigation field in the research institute to periodically survey the occurrence of pests and diseases, and provide forecasting information through Saitama Prefectural Plant Disease and Insect Control Station.

Development of technology to reduce pesticide usage using natural enemies



Scolothrips takahashii
feeding on Kanzawa spider mite



Pest occurrence investigation field

Research on tea processing

(1) Manufacturing technology experiment and research

- a. In order to promote wider use of cultivars bred in our prefecture, many experiments are carried out to establish manufacturing methods to utilize the characteristics of the cultivars. In addition, we are conducting production experiments for high value addition of promising strains that are to be registered as new cultivar in the near future.
- b. In order to expand the use of second-harvest tea, we research on the production of black tea using green tea cultivars, and the production of new tea cultivars (withered tea and fermented tea) with distinctive aroma.
- c. We have been accumulating technologies for the production of "Tencha" or powdered tea suitable for the environment in the production area in our prefecture, using the "Tencha" production facilities, powdering facilities, and the specialized covering culture field, etc., which were established in the research institute in 2017.

Development of new tea cultivars and presentation on research results



Processing trials with new tea cultivars



Presentation of research results at a conference

(2) Quality testing and evaluation

In cooperation with the Saitama Tea Industry Association, we analyze constituents and evaluate appearance of Sayama tea sold in stores and provide information of these results to tea farmers.

Tea testing



Tea Appearance test



Quality of liquor test

◇ Agricultural Innovation Support Section

Technical support to tea farmers, etc.

(1) Cultivation Technique Support

Providing guidance on tea field management, including skiffing, soil management, and pest control in tea production fields. We especially provide guidance on the timing of pest control based on the accumulated effective temperature of the mulberry scale.



A meeting on the timing to start spraying

(2) Tea Processing Technique Support

- a. Technical guidance on the production of tea for exhibition at the National Tea Fair and the Kanto Block Tea Fair, etc., is provided mainly through organizations such as regional study groups.
- b. Providing solutions to problems related to individual production techniques based on the evaluation results obtained at the Sayama Tea Fair in Saitama Prefecture, the Young Tea Farmers' Association FGTC, each city fairs, and the other tea quality evaluation meetings.
- c. Providing technical guidance on tea production mainly to successors and young farmers who have just started farming.

(3) On-site application of research results

- a. In order to popularize cultivars bred in Saitama Pref., guidance on cultivation methods and production techniques utilizing the characteristics of the cultivars is provided.
- b. Support for the introduction of environmentally friendly pest control technologies, IPM.
- c. In order to develop new demand, technical guidance on black tea production using second-harvest tea shoots and study meetings to improve product quality are held.



Black tea quality evaluation meetings

(4) Support for advanced initiatives

- a. Supporting efforts on tea production processes in accordance with national guidelines such as J-GAP and S-GAP.
- b. Providing information and technical guidance on pesticide control, etc. to tea farmers engaged in overseas export.

(5) Support for the implementation of various fairs

Support is provided to cities and other organizations for the implementation of tea fairs and quality evaluation of tea production.

PR activities for Sayama tea

We conduct various PR activities to increase consumption of Sayama tea, in cooperation with the Saitama Tea Farmers Association and the Saitama Tea Growers Youth League.

The Sayama Tea Plucking Festa, held in early June every year, attracts many visitors from all over the prefecture and Tokyo.

In addition, students from elementary and junior high schools in Iruma City and other areas visit our institute on social field trip or on the experience learning.



Sayama Tea Plucking Festa



Elementary School Social Studies Field Trip

Land and buildings

(1) Total land area: 101,272 m² (including 64,330 m² of test fields)

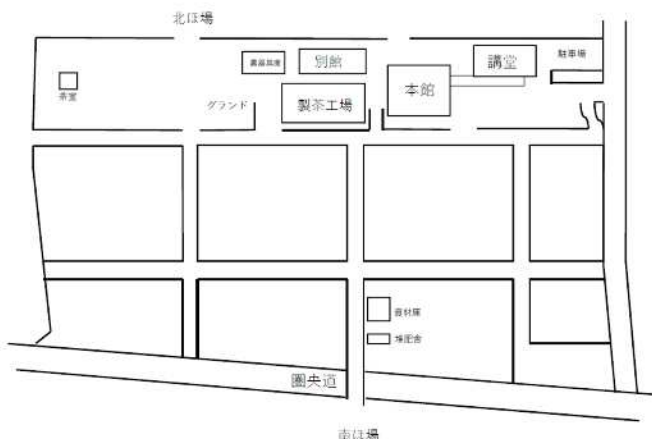
(2) Total building area: 4,461 m²

a. Main building:1,666 m²

b. Auditorium:375 m²

c. Tea factory:1,020 m²

d. Material storeroom, etc.:1,474 m²



<LOCATION>

Altitude 148.4m

Longitude 139° 21' E, 35° 48' N

<CLIMATE>

Annual average temp. 13.7° C

Annual average min. temp. 8.6° C

(Extreme temp. -12.8° C)

Annual average max. temp. 18.8° C



Mt. Fuji seen from the roof of the main building

Saitama Tea Research Institute

Kamiyaganuki 244-2,Iruma-shi,Saitama,358-0042,JAPAN

- Telephone 04-2936-1351(Rep.)
- Facsimile 04-2936-2891
- E-mail f361351@pref.saitama.lg.jp
- URL <https://www.pref.saitama.lg.jp/soshiki/b0914/index.html>