

SERICULTURAL EXPERIMENT STATION

Established : 1911

Location : Wada, Suginami-ku, Tokyo

Director : Toshifumi FUKUDA

Total Number of Employees : 732 (Research personnel: 405)

Out of Work :

This station performs comprehensive studies on all problems concerning sericultural industry, both fundamental and scientific, such as mulberry growing, breeding and raising of silkworms, silk reeling, improvement of silk quality, silk dyeing and silk weaving in order to secure technical development of sericultural industry. The station also carries out studies in regard to the practical application of those research findings to sericultural farmers, silk rellers and silk weavers.

Recent Principal Research Findings :

Breeding of "Shin-ichinose", a new mulberry variety having straight, wind-resistant shoots.

Mechanization of moriculture and silkworm rearing.

Mass pebrine inspection of silkworm moths.

Enlarged silkworm rearing on artificial diet.

Acceleration of mounting and tranquilization of male moths by the use of dodecyl alcohol.

An approach to the realization of the manless cocoon reeling system.

Publication :

Bulletin of the Sericultural Experiment Station (In Japanese with English summary, irregular, free exchange)

Sansi-kenkyū (Acta Sericologica) (Quarterly, free exchange)

Materials Study of the Sericultural Experiment Station (Irregular, free exchange)

The Annual Report of the Sericultural Experiment Station (Annual, free exchange)

Organization and Main Research Themes :

- Research Planning and Coordination Division (4 sections)
- General Administration Division (3 sections and 3 branches)
- Moriculture Division (8 laboratories)—Morphology, physiology, genetics, propagation physiology, improvement of cultivation; Frost control; Ecology in mulberry field.
- Silkworm Physiology Division (7 laboratories)—Physiology and morphology in general; Cyto- and histo-chemistry, biochemical genetics, ecogenetics, behavior analysis, nutrition, and formation of silk; Embryology and treatment of eggs.
- Director—Silkworm Breeding Division (5 laboratories)—Breeding of silkworms of higher productivity and better quality of silk; Genetical basis of silkworm breeding; Analysis of heterosis; Breeding systems and methods; Examination of silkworm characteristics; Distribution of new-bred silkworm eggs.
- Sericulture Division (6 laboratories)—(Maebashi City, Gumma Prefecture)—Improvement of rearing methods; Micro-climate and hygienics in silkworm rearing; Sericulture management; Mechanization of sericultural production system (mulberry culture and silkworm rearing).
- Pathology and Entomology Division (6 laboratories)—Control of pebrine, bacterial and fungus diseases of silkworm and wild

- insects; Virus diseases of silkworm; Pathology of mulberry; Sericultural insect pests; Use of agricultural chemicals in sericulture.
- Filature Division (7 laboratories)—Cocoon drying; Testing and grading of cocoons; Cocoon cooking; Cocoon reeling; Physico-chemical properties of raw silk; Automatic cocoon reeling process; Improvement of reeling machine; Quality and process control in raw silk production system.
 - Silk Fiber Division (6 laboratories)—Weaving and knitting; Scouring; Dyeing; Chemical finishing; Physics; Silk goods.
 - Chemistry Division (7 laboratories)—Plant nutrition; Fertilizer use; Soil science; Chemistry of mulberry and silkworm; Chemistry of fiber and filature; Utilization of by-products in sericulture; Application of isotopes in sericultural research; Chemical analysis of sericultural substances.
 - Tōhoku Branch Station
(5 laboratories)
(Fukushima City, Fukushima Prefecture)
 - Chūbu Branch Station
(5 laboratories)
(Matsumoto City, Nagano Prefecture)
 - Kansai Branch Station
(5 laboratories)
(Ayabe City, Kyoto Prefecture)
 - Kyūshū Branch Station
(5 laboratories)
(Ueki-machi, Kumamoto Prefecture)
 - Shinjō Silkworm-Egg Experiment Station (3 laboratories)—(Shinjō City, Yamagata Prefecture)
Silkworm eggs; Silkworm characteristics; Reproductive silkworm-eggs.
 - Kobuchizawa Silkworm-Egg Experiment Station (3 laboratories)—
(Kobuchizawa-machi, Yamanashi Prefecture)
Maintenance of stock silkworm strains and original silkworm eggs; Examination of silkworm characteristics.
 - Miyazaki Silkworm-Egg Experiment Station (3 laboratories)—
(Miyazaki City, Miyazaki Prefecture)
Mechanization of reproductive silkworm rearing; Silkworm egg production; Reproductive silkworm eggs.
 - Okaya Filature Experiment Station (4 laboratories)—(Okaya City, Nagano Prefecture)
Treatment of cocoons; Raw silk reeling; Finishing; On line system of cocoon reeling.

Moriculture and sericulture;
Silkworm breeding; Soil and
fertilizers; Pathology.