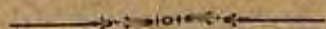


THE FORESTRY EXPERIMENTAL
STATION,
DEPARTMENT
OF
AGRICULTURE AND FORESTRY.

MEGURO, TOKYO, JAPAN.



(History-Business-Equipment-Staff, Etc.)

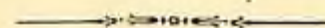
1926



02000-00358711-8

THE FORESTRY EXPERIMENTAL
STATION,
DEPARTMENT
OF
AGRICULTURE AND FORESTRY.

MEGURO, TOKYO, JAPAN.

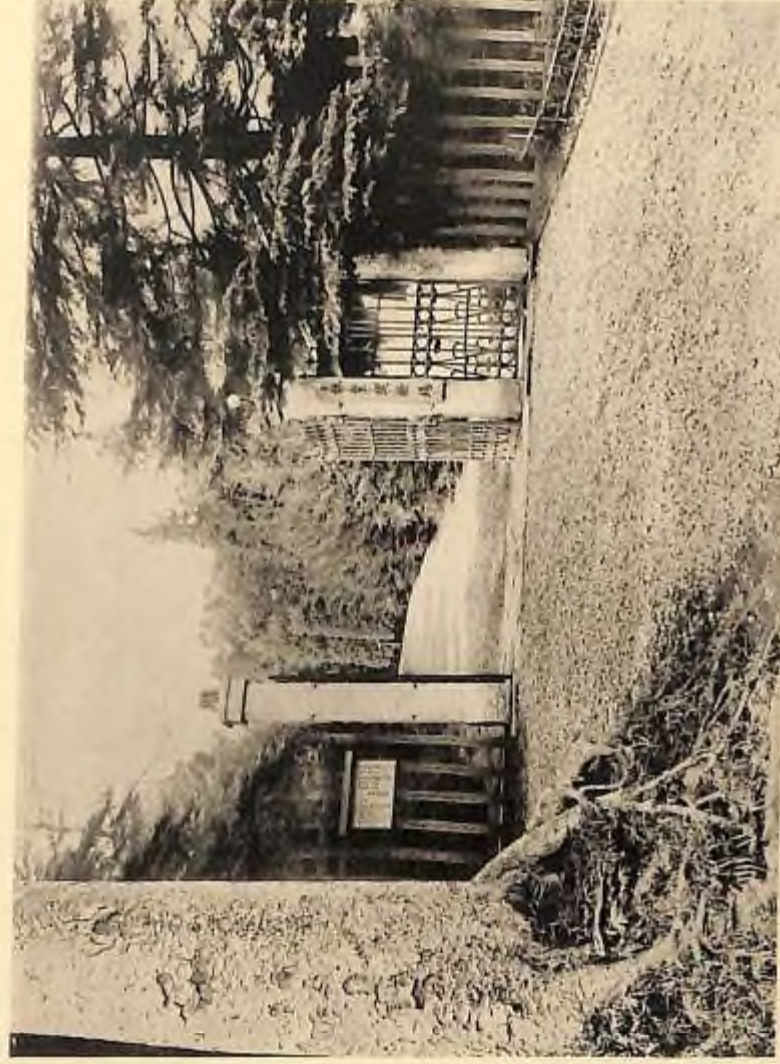


(History-Business-Equipment-Staff, Etc.)

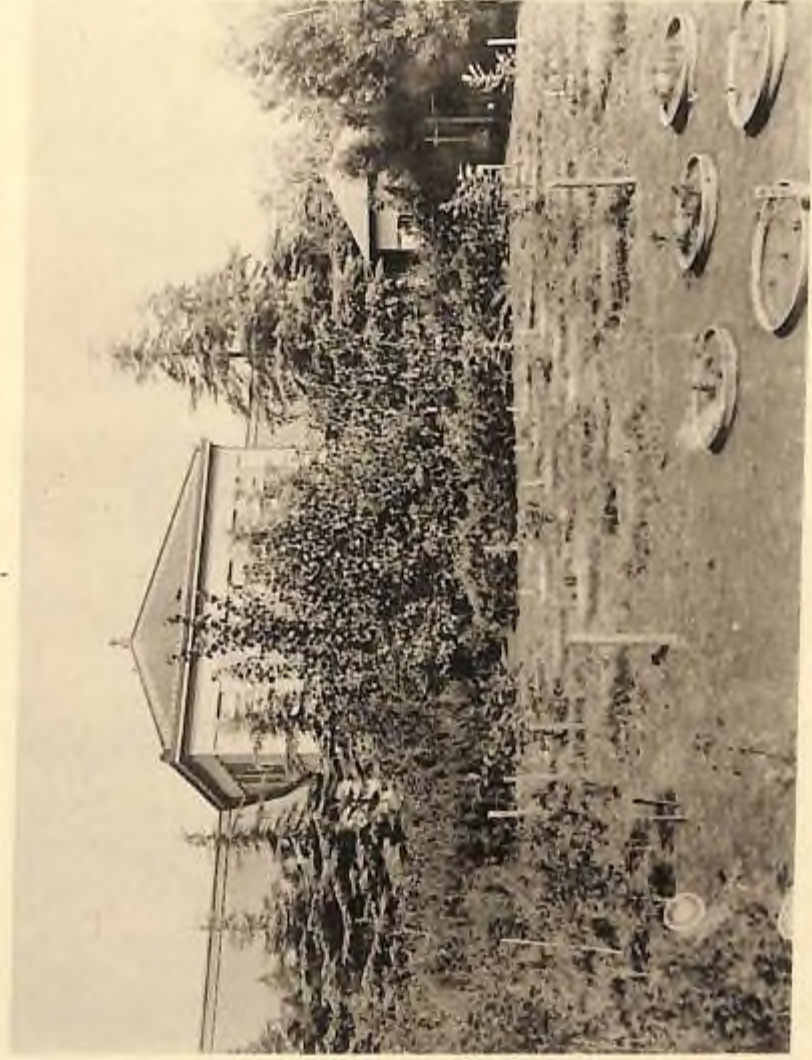
1926

CONTENTS.

	PAGE
I. HISTORY.....	I
II. BUSINESS.	3
III. EQUIPMENT.	6
IV. STAFF	8
V. RESULTS OF INVESTIGATIONS AND EXPERIMENTS	9
VI. FOREST METEOROLOGICAL STATIONS	22



The Main Gate



The Specimen-gallery

THE FORESTRY EXPERIMENTAL
STATION,
DEPARTMENT
OF
AGRICULTURE AND FORESTRY.

(History-Business-Equipment-Staff, Etc.)

I. HISTORY.

Experiments conducted by the Imperial Government on the forestry dates back to the 11th year of Meiji (1878), when the Arboretum under the superintendence of the Home Department was first founded at Nishigahara in the suburbs of Tōkyō. At the time when the Department of Agriculture and Commerce was established in the 14 year of Meiji (1881) it was placed under the control of the Forestry Bureau, and later in the 16th year of Meiji (1883), when the Tōkyō School of Forestry was organized at the same place, it was made to attach to the school.

Then, in the 19th year of Meiji (1886), on the abolition of the school, the management of the arboretum was replaced to the Forestry Bureau.

Later, in the 33rd year of Meiji (1900), the above mentioned arboretum has been removed to the present site at Meguro, near Tōkyō, under the name of the Meguro Experimental Nursery, and in the 38th year of Meiji (1905), the name was changed to The Forestry Experimental Station, Bureau of Forestry.

Under such circumstances, investigations and experiments concerning the silviculture, forest management, utilization of forest products &c., have been conducted, and since the 43rd year of Meiji (1910), an extension of the work has been effected.

On the other hand, in February, 44th year of Meiji (1911), Takahagi Branch Station was established in Ibaraki prefecture (at Kushigata-mura, Taga-gōri), in order to conduct experiments relating to the forestry combined with agriculture.

In addition, in April of the same year, Kajiyasawa Wood-working Factory was founded in Miyagi prefecture (at Kajiyasawa, Unzen-mura, Tamatsukuri-gōri) in order to accelerate the utilization of certain broad-leaved trees, such as the *Buna* (*Fagus Sieboldi*), *Mizunara* (*Quercus grosseserrata*) and others, which occur abundantly in Japan.

While investigations and experiments concerning the wood-working and manufacture of furniture of these timbers were being carried on, finished goods were placed on sale to the general public.

This factory, however, was closed in the 3rd year of Taishō (1914).

The Main Station also conducts the business of the Forest Meteorological Stations in mountainous districts, which have been founded as one of river-improvemental plans from the 44th year of Meiji (1911) onward.

In the 7th year of Taishō (1918), one technical expert and two assistant experts were appointed to attach to each Divisional Forestry Office, in order to conduct scientific experiments in co-operation with the Forestry Experimental Station. The sphere of the forestry experiments has been constantly extended as the time passes, and consequently two branches of the Forestry Experimental Station have been established in Sendai and Kumamoto for the purpose of furthering the development and attaining speedy results of experiments, and since April of the 10th

year of Taishō (1921) all business concerning the forestry experiments in every Divisional Forestry Office has been transferred to the above-mentioned branches.

In the same year, Ogasawara Branch Station was established in order to make the investigations and experiments concerning tropical plants.

In December of the 13th year of Taishō (1924) two branch stations of Sendai and Kumamoto were abolished in consequence of the administrative readjustment, and all their business have come to be carried on at the Main Station.

II. BUSINESS.

The principal experiments conducted in the Forestry Experimental Station are given as follows:—

1. Investigations and Experiments Concerning the Silviculture.

Relation between the nature of forest soil and the growth of forest trees.

Bacteria in the soil of forest.

✓ Nature of forest tree seeds.

✓ Nurseries and planting of seedlings.

Cultivation of foreign species, and their growth.

Manure of forest trees.

Physiological researches of forest trees.

Period of seeds-bearing of principal species.

Formation of protective forests on sand dune.

Natural regeneration of principal species.

Artificial plantation and improvement cuttings of the particular species.

Soil suitable for plantation of principal forest trees.

Plantation of bamboo forest.

2. Investigations and Experiments Relating to the Utilization of Forest Products.

Strength of timber.

Drying and storing of timber.

Various substitute timbers.

Structure of timber.

Timber as materials for the manufacture of aeroplanes.

Timber as materials for the manufacture of furnitures and implements.

Technological nature of bamboos.

Technological utilization of timber.

Charcoal industry and improvement of its by-products.

Wood dry-distillation.

Economical use of fire wood.

Method of antisepticizing timber, prevention of noxious insects and fire proving of timber.

Resins, vegetable oils, perfumes, dyes and drugs.

Resin and its refined oil.

Cultivation of edible fungi.

Edible, medicinal and dye plants, and vegetable fibres.

3. Investigations and Experiments Relating to the Forest Management, and Forest Protection.

Method of forest mensurations.

Collection of materials for preparations of the volume table.

Investigations for the construction of the volume tables for the principal species.

Method of estimation the volume of logs.

Method of estimating the volume in cord-measure for standing trees.

Investigations for the construction of the yield-tables for the principal species.

Growth and handling method of the naturally regenerated forests.

Classification of noxious insects for trees, timbers and bamboos, their habit and method of exterminating them.

The habit of field mouses and the method of exterminating them.

Causes of timber decay and its preventive measures.

Injurious fungi for timbers and bamboos, and its exterminating and preventive measures.

Damages caused by gases and mineral pollution to forest trees.

Damages of forest trees and seedlings.

Preventing measures against avalanches.

4. Testing and Analysing Forest Products.

5. Observation of Forest Meteorology.

Relation between rainfall and overflow of rivers.

The quantity of water penetrating into ground.

Relation between climate and distribution of forests.

6. Testing and Distribution of Tree Seeds and Seedlings.

7. Experiments Concerning the Forestry Combined with Agriculture.

Reforestation and treatment of species which are useful as fertilizers and fodder.

Forest and wild lands used as pasture of cattle and horses and its influences upon them.

Burning of wild lands, and its influences upon productive capacity of soil.

Treatment concerning the products of herbage in wild lands.

8. Forestry Specimens.

They are engaged also in collecting various samples and specimens of domestic and foreign concerning the forestry, which are open to the general public for inspection.

Of the above-mentioned experiments, those concerning the forestry

combined with agriculture (7), have been conducted at the Takahagi Branch Station, while those about the tropical plants are being conducted in the Ogasawara Branch Station.

III. EQUIPMENT.

1. Forestry Experimental Station (Main Station).

The Forestry Experimental Station lies about half a mile to the south of Meguro-Railway-Station (Yamate-line) in the suburbs of Tōkyō.

The total area of the main station compound is about 15 ha., whereof the items are as follows:—

Sample tree gardens	2 ha.
Experimental nurseries	4 ha.
Experimental forests	7 ha.
Lands for the offices, laboratories, official residences and the other uses	2 ha.

In the sample tree gardens about 90 species of foreign trees, and 360 species of domestic trees are planted for the reference to the general forestry and public studies.

In the experimental nurseries, experiments concerning the germination of tree seeds, nursering and planting of seedlings, manuring of forest trees, every trimming, protection for the nursering and grafting, cutting &c., are conducted.

At present, the seedlings of about 155 species of the domestic broad-leaved trees, 35 species of the conifers; and 25 species of the foreign broad-leaved trees, 46 species of the conifers are cultivated there.

The woods in this station are chiefly used for various experiments, such as growth of the principal domestic and foreign trees, distance for transplanting, cultivation of undershrubs, natural regeneration of principal species, improvement cuttings, raising bamboo plantation, and

investigation of tree seeds in relation to the producing districts of the mother trees and their descent etc.

The total area occupied by the principal buildings in the main station is about 5145.2 sq.m., the particulars are as follows:—

Buildings	Number	Area (sq.m.)
1. Gate-keeper's lodge	1	30
1. Office room	1	231
1. Ditto, appendant store-room and lavatories (including corridors) ..	—	228
1. Night duty and servants' room	1	89
1. General laboratory	1	278
1. Lecture hall	1	255
1. Physical and chemical laboratories	2	397
1. Seed-testing laboratories	2	147.5
1. Celler to preserve tree seeds	1	23
1. Specimen galleries	4	1565
1. Green houses	2	112
1. Glass houses (chiefly used for pot experiment of plants)	2	132
1. Insects rearing rooms	2	66
1. Experimental room for wood-working	1	231
1. Wood-working laboratory	1	53
1. Lumber store-room	1	40
1. Thermostat room	1	20
1. Ware-houses	2	311
1. Distillery	1	23
1. Godown for chemicals	1	3.7
1. Pump room	1	10
1. Meteorological observing room	1	30
1. Nursery working room	1	50
1. Gardeners' resting room	1	50
1. Official residences	7	500
1. Garage	1	7

Besides these, there are water tank and its appendant pump, reservoir and meteorological apparatus for observation in the forest or out of it.

All station compound and specimen galleries are open to the public.

2. Takahagi and Ogasawara Branch Stations.

(a) Takahagi Branch Station.

This branch station stands in Kushigata-mura, Taga-gōri, Ibaraki prefecture, and is situated about 2 miles to the southwest of Matsubara-machi, or half a mile to the northeast of Kawajiri-Railway-Station (Jōban-line).

The total area of this branch station compound is about 132 ha., whereof the items are as follows:—

Lands for experiments concerning the forestry combined with agriculture.....122 ha.

For burning experiment of wild lands..... 10 ha.

There are 13 blocks of building in which office, ware-house, stall, manure-shed and others are to be found, and their total area is about 1168 sq. m.

(b) Ogasawara Branch Station.

This branch station is in the Island of Chichi (Chichi-jima), one of the Bonin Islands.

IV. STAFF.

The present number of the staff in the Forestry Experimental Station are as follows:—

	Main Station	Takahagi Branch Station.	Ogasawara Branch Station	Total
Higher official,	14 (one holding additional duties)	—	1 (additional duties)	15
Subordinate official & assistant expert.	12	1	1 (additional duties)	14
Expert, not on the regular staff.	4	—	1	5

Besides these, there are 51 of assistants and employees and one forest probationer.

V. RESULTS OF INVESTIGATIONS AND EXPERIMENTS.

The results of various investigations and experiments conducted at the Forestry Experimental Station are published in the "Bulletin of the Forestry Experimental Station" (Ringyō-Shiken-Hōkoku), "Journal of the Forestry Experimental Station" (Ringyō-Shiken-Ihō), and "Journal of Forestry" (Sanrin-Ihō).

Besides these, "Extracts from the Bulletin of the Forestry Experimental Station" (Ringyō-Shiken-Hōkoku-Shōroku) * are published occasionally.

The following themes have been published or in course of printing.

1. INVESTIGATIONS AND EXPERIMENTS CONCERNING THE SYLVICULTURE.

1. On the Germinating Terms of Tree Seeds. (Bul.F.E.S.,NO.1, 1904)
1. Investigation of the Number and Weight of Forest Tree Seeds. (Bul.F.E.S.,NO.1, 1904)
1. On the Relation between Germination Percentage and Assortment of Seeds. (Bul.F.E.S.,NO.2, 1905)
1. Value of Water Assortment of the Principal Tree Seeds, and Its Method. (Bul.F.E.S.,NO.11, 1915)
1. Relation between Seeding-Quantities and Germination-Percentage of Seeds. (Bul.F.E.S.,NO.3, 1905)
1. An Optimum Temperature for Germination of Tree Seeds. (Bul.F.E.S.,NO.8, 1910)

ABBREVIATIONS.

Bul. F. E. S. Bulletin of the Forestry Experimental Station.

Extr. Bul. F. E. S. Extracts from the Bulletin of the Forestry Experimental Station.

* (written in both Japanese and English.)

1. Experiments on the Preservation of Principal Forest Tree Seeds. (Bul.F.E.S.,NO.8, 1910; NO.10, 1913, and Extr.Bul.F.E.S., 1915)
1. Experiments on the Preservation of Seeds of the *Yamanarashi*. (*Populus tremula*, var. *villosa*.) (Bul.F.E.S.,NO.9, 1911)
1. A Simple Method for Testing Germination-Percentage of Seeds. (Bul.F.E.S.,NO.9, 1911)
1. On the Temperatures Required for the Germination and Sowing-season of the *Keyaki* (*Zelkova serrata*) Seeds. (Bul.F.E.S.,NO.15, 1917)
1. Investigation into Tree Seeds in Relation to the Producing Districts of the Mother Trees and Their Descent. (Bul.F.E.S.,NO.2, 1905; NO.10, 1913; Extr.Bul.F.E.S., 1915)
1. Experiments on the Storage of Forest Tree Seeds, and on the Value of Year-Old-Seeds for Nursery. (Bul.F.E.S.,NO.17, 1918)
1. Forcing the Germination of Seeds of the *Keyaki* (*Zelkova serrata*) the *Hô* (*Magnolia hypoleuca*) and the *Urushi* (*Rhus vernicifera*). (Bul.F.E.S.,NO.18, 1919)
1. The Degree of Dryness of Stored Seeds in Relation to Their Vitality. (Bul.F.E.S.,NO.21, 1920)
1. Experiments on the Tree Seeds and Seedlings in Kumamoto Divisional Forestry Office. (Bul.F.E.S.,NO.2, 1905)
1. Effect of Cutting Root Off Seedlings upon the Growth of Stem and Roots. (Bul.F.E.S.,NO.1, 1904)
1. Experiments on Seasons of Transplanting Seedlings. (Bul.F.E.S.,NO.1, 1904)
1. Experiments on Distances in the Transplanting Seedlings. (Bul.F.E.S.,NO.2, 1905)
1. A Simple Method of Transplanting Seedlings. (Bul.F.E.S.,NO.2, 1905)
1. In What Directions Seedlings of the *Hinoki* (*Chamaecyparis obtusa*) and the *Sawara* (*Chamaecyparis piceifera*) should be Planted? (Bul.F.E.S.,NO.2, 1905)

1. On the Season for Cutting Roots of the Seedlings. (Bul.F.E.S., NO.3, 1906)
1. A Method for Preventing the Growth of Seedlings. (Bul.F.E.S., NO.3, 1906)
1. Relation between the Growth of the Seedlings and Seed-bearing. (Bul.F.E.S.,NO.5, 1908)
1. Experiments on Raising Seedlings of the *Yamanarashi* (*Populus tremula*, var. *villosa*.) (Bul.F.E.S.,NO.5, 1908)
1. Experiments on Planting out the *Madake* (*Phyllostachys bambusoides*) in the Ōsaka Divisional Forestry Office. (Bul.F.E.S.,NO.7, 1909)
1. Experiments on Transplanting of Foreign Species of Trees. (Bul.F.E.S.,NO.1, 1904)
1. Relation between the Growth of Seedlings and the Soil. (Bul.F.E.S.,NO.2, 1905; NO.5, 1908)
1. Relation between the Size of Soil Particles and the Root System of Seedlings. (Bul.F.E.S.,NO.8, 1910)
1. Investigation of Composition of Fallen Leaves of Forest Trees and Their Quantities. (Bul.F.E.S.,NO.10, 1913; Extr.Bul.F.E.S., 1915)
1. The Proper Season for Application of Fertilizers to the *Sugi* (*Cryptomeria japonica*) Seedlings. (Bul.F.E.S.,NO.10, 1913; Extr.Bul.F.E.S., 1915)
1. The Proper Season for Putting Nitrogenous Manure to the *Hinoki* (*Chamaecyparis obtusa*) Seedlings and the Efficacy of the Fertilizers. (Bul.F.E.S.,NO.11, 1915; Extr.Bul.F.E.S., 1915)
1. On the Effect of Radiogenschlamm on the Growth of Tree Seedlings. (Bul.F.E.S.,NO.14, 1916)
1. Composition of Mineral Substances in Seedlings. (Bul.F.E.S.,NO.7, 1909)
1. Influence of Copper Salts on the Development of Plants. (Bul.F.E.S.,NO.1, 1904)
1. On the Trees of Tolerance and Intolerance of Shade. (Bul.F.E.S., NO.2, 1904)

1. On the Formation and Distribution of the Camphor and Camphor Oil in the Camphor-tree (*Cinnamomum Camphora*.) (Bul.F.E.S., NO.1, 1904)
1. Relation between the Forest Trees and Their Mycorrhiza. (1st. Rep.) (Bul.F.E.S., NO.15, 1917), (2nd Rep.) (Bul.F.E.S., NO.23, 1923)
1. On the Method to Estimate the Age and Planting Year of the *Sugi* (*Cryptomeria japonica*.) (Bul.F.E.S., NO.20, 1920)
1. On the After-ripening and the Germination of the *Keyaki* (*Zelkova serrata*) Seeds. (Bul.F.E.S., NO.22, 1922)
1. Experiments on the Natural Regeneration of the *Keyaki* (*Zelkova serrata*). (Bul.F.E.S., NO.22, 1922)
1. Fertilizer Experiments on Tree Seedlings. (Bul.F.E.S., NO.22, 1922)
1. On the Forms of Sand Dunes Near the Mouth of the River Kuji, Ibaraki Prefecture. (Bul.F.E.S., NO.23, 1923)
1. Experiments for Reclaiming Sand Dunes on the Coast of Fukiagehama, Kagoshima Prefecture. (Bul.F.E.S., NO.23, 1923)
2. INVESTIGATIONS AND EXPERIMENTS RELATING TO THE UTILIZATION OF FOREST PRODUCTS.
 - (a) TECHNOLOGICAL NATURE AND APPLICATION OF WOOD.
 1. Investigation of the Mechanical Strength of Woods. (Bul.F.E.S., NO.4, 1907; NO.6, 1909)
 1. Investigation of the Mechanical Strength of the Native Woods of Hokkaidō and Karafuto (Saghalien) (Bul.F.E.S., NO.10, 1913)
 1. Investigation of the Mechanical Strength of Several Hard Woods. (Bul.F.E.S., NO.13, 1915)
 1. Investigation of the Mechanical Strength of the Wood of the *Obisugi* (*Cryptomeria japonica*) (Bul.F.E.S., NO.14, 1916)
 1. Investigation of the Mechanical Strength of the Wood of the *Akamatsu* (*Pinus densiflora*) (Bul.F.E.S., NO.15, 1917)
 1. Investigation of the Mechanical Strength of the Wood of the *Yotsuyamaruta* and the *Sugi* (*Cryptomeria japonica*) from Ōme and Nishi-

- kawa. (Bul.F.E.S., NO.15, 1917)
1. Researches on the Physical and Chemical Properties of the Principal Woods of Japan. (Bul.F.E.S., NO.6, 1909)
1. Experiments on the Electric Resistance in Wood. (Bul.F.E.S., NO.10, 1913; Extr.Bul.F.E.S., 1915)
1. Hygroscopicity and Expansion in Hard Woods. (Bul.F.E.S., NO.15, 1917)
1. Hygroscopicity and Expansion of Certain Woods. (1st. Rep.) (Bul.F.E.S., NO.17, 1918)
1. Hygroscopicity and Expansion of Certain Woods. (2nd Rep.) (Bul.F.E.S., NO.23, 1923)
1. Hygroscopicity and Expansion of Certain Woods. (3rd. Rep.) (Bul.F.E.S., NO.25, 1925)
1. Experiments on the Bent-work for Chairs. (Bul.F.E.S., NO.6, 1909)
1. Utilization of Hard Woods. (Bul.F.E.S., NO.10, 1913)
1. Experiments on Manufacturing Wooden Bowls. (Bul.F.E.S., NO.13, 1915)
1. On the Value of the *Buna* Wood (*Fagus Sieboldi*) as Material for the Furnitures, Fittings and Fixtures. (Bul.F.E.S., NO.13, 1915)
1. Experiments on the Utilization of Hard Woods and Their Sawing and Manufacturing Wooden Articles in the Kajiyasawa Wood Working Factory. (Bul.F.E.S., NO.13, 1915)
1. On the Fluorescence of the Water Extracts of Wood. (Bul.F.E.S., NO.15, 1917)
1. On the Fluorescence of the Water Extracts of the Native Wood of the South Seas. (Bul.F.E.S., NO.21, 1920)
1. The Cause of Darkening of the Heart Wood of the *Sugi* (*Cryptomeria japonica*) (Bul.F.E.S., NO.16, 1918)
1. Experiments on the Antisepsis of Sleepers. (Bul.F.E.S., NO.17, 1918)
1. Colouring and Impregnating the Wood of Growing Trees. (Bul.F.E.S., NO.17, 1918)

1. Colouring Impregnating and Fire-proofing of the Wood of Growing Trees by Means of Transpiration Currents. (Bul.F.E.S.,NO.21, 1920)
1. On the Resin Canals of the *Urushi* Tree. (*Rhus vernicifera*) (Bul.F.E.S.,NO.22, 1922)
1. Investigation of the Mechanical Strength of Wood of the *Shii* (*Pasania* spp.) *Tabu* (*Machilus* spp.) and *Kashi* (*Quercus* spp.) Native on Kagoshima Prefecture. (Bul.F.E.S.,NO.22, 1922)
1. Investigation into the Implements used for Felling and Sawing in Japan. (Bul.F.E.S.,NO.24, 1924)
1. Investigation of the Transverse Strength of Wood. (Extr. Bul., F.E.S., 1915)
1. Determination of the Calorific Power of Wood. (Extr. Bul., F.E.S., 1915)

(b) CHEMICAL PROPERTIES AND APPLICATION OF FOREST PRODUCTS.

1. On the Materials for Tanning of Skins. (Bul.F.E.S.,NO.3, 1905; NO.5, 1908)
1. The Amount of Tannin Contained in Gall-nuts. (Bul.F.E.S.,NO.3, 1906; NO.5, 1908; NO.7, 1909; NO.8, 1910; NO.9, 1911)
1. Investigation into the Tannic Materials in *Quercus* and Certain Other Trees. (Bul.F.E.S.,NO.3, 1906; NO.5, 1908)
1. Monthly Amount Tannin Contained in the Bark of the *Nobunoki* (*Platyacarya strobilacea*) (Bul.F.E.S.,NO.8, 1910)
1. Tannin Extracts from the *Kiri* Wood. (*Castanea Sativa*) (Bul.F.E.S.,NO.15, 1917)
1. On the Tannic Materials of Marshall and Caroline Islands. (Bul.F.E.S.,NO.21, 1920)
1. On the Dry Distilled Oil from the Bark of the *Kaba* (*Betula japonica*) (Bul.F.E.S.,NO.10, 1913)
1. Notes on the Essential Oil Obtained from Forest Trees. (Bul.F.E.S.,NO.5, 1907)
1. Notes on the Essential Oil of the *Sugi* (*Cryptomeria japonica*) Leaves. (Bul.F.E.S.,NO.11, 1915)
1. Notes on the Dry Distilled Oil from the *Hinoki* (*Chamaecyparis*

obtusata) of Mt. Arisan, Formosa. (Bul.F.E.S.,NO.11, 1915; Extr. Bul.F.E.S., 1915)

1. Notes on the Essential Oil of the *Sanshō* (*Zanthoxylum piperitum*) (Bul.F.E.S.,NO.11, 1915; Extr. Bul.F.E.S., 1915)
1. Notes on the Volatile Oil of the *Hiba* (*Thujaopsis dolabrata*) (Bul.F.E.S.,NO.15, 1917; Extr. Bul.F.E.S., 1915)
1. Charcoal Burning in Japan. (Bul.F.E.S.,NO.5, 1908; Extr.Bul.F.E.S., 1915)
1. Condensation of Wood Vinegar in Charcoal Burning. (Bul.F.E.S.,NO.7, 1909; Extr.Bul.F.E.S., 1915)
1. Investigation into the Japanese Charcoal Kilns and the Quality of Charcoal. (Bul.F.E.S.,NO.9, 1911)
1. Charcoal Burning in Aomori Divisional Forestry Office. (Bul.F.E.S.,NO.14, 1916)
1. Investigation on the Production of Calcium Acetate. (Bul.F.E.S.,NO.14, 1916; NO.15, 1917)
1. Investigation of the Charcoal Used in Pig Iron Making. (Bul.F.E.S.,NO.15, 1917; NO.16, 1918; NO.18, 1919)
1. Utilization of the Starches Contained in the Seeds of the *Tochi* (*Aesculus turbinata*), *Mizumara* (*Quercus grosseserrata*), *Kashi* (*Quercus* spp.), *Kunugi* (*Quercus serrata*) and *Kashira* (*Quercus dentata*). (Bul.F.E.S.,NO.7, 1909)
1. Investigation into the Production of Potash from the Weeds of Waste-lands. (Bul.F.E.S.,NO.17, 1918)
1. Experiments on Distillation of Oil of Turpentine. (Bul.F.E.S.,NO.9, 1911)
1. Experiments on Collecting Crude Turpentine. (Bul.F.E.S.,NO.5, 1908)
1. Tapping of Lacquer Vanish. (Bul.F.E.S.,NO.5, 1908; NO.7, 1909; Extr. Bul.F.E.S., 1915)
1. Camphor Manufacturing Experiments in the Kumamoto Divisional Forestry Office. (Bul.F.E.S.,NO.3, 1906; NO.12, 1915)
1. Camphor Manufacturing Experiments in the Kagoshima Divisional

Forestry Office. (Bul.F.E.S.,NO.3, 1906; NO.5, 1908; NO.7, 1909; NO.8, 1910; NO.12, 1915)

(c) PROPAGATION AND APPLICATION OF FOREST BY-PRODUCTS.

1. Researches on the Culture of the *Matsutake* (*Armillaria Matsutake*) (Bul.F.E.S.,NO.7, 1909; Extr.Bul.F.E.S., 1915)
1. Researches on the Culture of the "White Juda's-Ear" (*Tremella fuciformis*, BERK) (Bul.F.E.S.,NO.7, 1909; Extr.Bul.F.E.S., 1915)
1. Notes on the Culture of the *Shiitake* (*Cortinellus Berkeleyanus*) (Bul.F.E.S.,NO.8, 1910; Extr.Bul.F.E.S., 1915)
1. White Wax Coccid (*Ericerus Pela*, CHAV) (Bul.F.E.S., NO.11, 1915; Extr.Bul.F.E.S., 1915)

3. INVESTIGATIONS AND EXPERIMENTS RELATING TO THE FOREST MANAGEMENT AND FOREST PROTECTION.

(a) FOREST MANAGEMENT.

1. On the Comparison of Methods of Estimating Volume of Stand. (Bul.F.E.S.,NO.1, 1904)
1. Investigation of the Volume Curves in the Graphic Method of Estimating the Volume of Stand. (Bul.F.E.S.,NO.2, 1905)
1. Volume Tables of the *Akamatsu* (*Pinus densiflora*), *Sugi* (*Cryptomeria japonica*), *Momi* (*Abies firma*), *Tsuga* (*Tsuga Sieboldii*) and *Hiba* (*Thujopsis dolabrata*). (Bul.F.E.S.,NO.8, 1910)
1. Volume Tables of the *Shirakashi* (*Quercus myrsinaefolia*), *Buna* (*Fagus Sieboldii*) and *Kuri* (*Castanea Sativa*). (Bul.F.E.S.,NO.10,1913)
1. Volume Tables and Form-Height Tables for Single Tree of the *Akamatsu* (*Pinus densiflora*) (Bul.F.E.S.,NO.16, 1918)
1. Revised Volume Table for Single Tree of the *Hiba* (*Thujopsis dolabrata*). (Bul.F.E.S.,NO.19, 1920)
1. On the Method of Estimating Volume in Cord-measure for Single Standing Tree. (Comparison on the Cord-measure Unit of Various Quarters in Japan) (Bul.F.E.S.,NO.10, 1913)
1. Investigation of Volume in Cord-measure for Fire Woods. (Bul.F.E.S.,NO.14, 1916)

1. Investigation of the Formula Estimating the Cubic Contents of Branches of the *Akamatsu* (*Pinus densiflora*) (Bul.F.E.S.,NO.11,1915)
1. On the Bark Percentage of the *Akamatsu* (*Pinus densiflora*). (Bul.F.E.S.,NO.18, 1919)
1. On the Growth of the *Mōsō* (*Phyllostachys mitis*) and *Madake* (*Phyllostachys bambusoides*). (Bul.F.E.S.,NO.1, 1904)
1. Growth and Yield of the *Madake* (*Phyllostachys bambusoides*) Stands in the District of Kin-ki. (Bul.F.E.S.,NO.8, 1910)
1. Growth and Yield of the *Karamatsu* (*Larix leptolepis*) Stands in the Province of Shinano. (Bul.F.E.S.,NO.4, 1907)
1. Growth and Yield of the *Sugi* (*Cryptomeria japonica*) Stands. (Bul.F.E.S.,NO.11, 1915)
1. Yield Table for the *Akamatsu* Stands. (*Pinus densiflora*) (Bul.F.E.S.,NO.21, 1920)
1. On the Constructions for the Volume Table of Logs. (Bul.F.E.S., NO.25, 1925)
1. Notes on the Analytical Interpretation of Growth Curves for Single Tree and Stands, and on Application to the Construction of Yield Table for *Cryptomeria japonica*. (Extr.Bul.F.E.S., 1915)
1. Investigation on Form-Height Tables for the Principal Conifers and Some Broad-leaved Trees in Japan, and Bases on which They may be Constructed. (Extr.Bul.F.E.S., 1915)
1. Thinning Experiments in the *Karamatsu* (*Larix leptolepis*) Stands. (Bul.F.E.S.,NO.2, 1905; NO.6, 1909)
1. On the Thinning which have been Used in the *Sugi* (*Cryptomeria japonica*) Stands in Yoshino District, and Its Influence upon the Growth of Trees and Stands. (Bul.F.E.S.,NO.3, 1907)
1. On the Experiments of High Forest with Reserves in the Tōkyō Divisional Forestry Office. (Bul.F.E.S.,NO.3, 1906)
1. Experiments of Natural Regeneration of the *Ichii-gashi* (*Quercus gilva*) in Kumamoto Divisional Forestry Office. (Bul.F.E.S.,NO.17, 1918)

(b) FOREST PROTECTION.

1. Observation on Seed Chalcidids of Conifers. (Bul.F.E.S.,NO.2, 1905)
1. On Certain Chalcidids Injurious to Conifer Seeds. (Bul.F.E.S.,NO. 17, 1918)
1. Insect Damage to the American Poplars in Japan. (Bul.F.E.S.,NO. 2, 1905)
1. A Caterpillar Destructive of *Quercus serrata*. (Bul.F.E.S.,NO.3, 1906)
1. On the Leaf Beetles that Damage *Salicaceae*. (Bul.F.E.S.,NO.9, 1911)
1. Marine Worms in the Storage pond. (Bul.F.E.S.,NO.16, 1918)
1. An Insect Enemy to the White Grubs. (Bul.F.E.S.,NO.17, 1918)
1. White Ants in Japan. (Bul.F.E.S.,NO.9, 1911, NO.10, 1913; Extr. Bul.F.E.S., 1915)
1. Experiments on the Prevention against Insect Damage of Timber and Bamboo Canes (Bul.F.E.S.,NO.14, 1916)
1. On the Insects Noxious to Timbers and Bamboos. (Bul.F.E.S.,NO. 14, 1916)
1. Notes on the Heart-Rot Disease of the *Karamatsu* (*Larix leptolepis*) (Bul.F.E.S.,NO.1, 1904)
1. Antiseptic Experiment of Woods (Bul.F.E.S.,NO.8, 1910)
1. Researches on the Hydropsy of the *Matake* (*Phyllostachys bambusoides*) (Bul.F.E.S.,NO.9, 1911; Extr.Bul.F.E.S., 1915)
1. Researches on the Red Plague of the *Sugi* (*Cryptomeria japonica*) Seedlings. (Bul.F.E.S.,NO.10, 1913, NO.14, 1916; Extr.Bul.F.E.S., 1915)
1. Experiments on the Controlling Methods of the Red Plague of the *Sugi* (*Cryptomeria japonica*) Seedlings. (Bul.F.E.S.,NO.14, 1916)
1. On the Durability of the Wood of the *Hiba* (*Thujopsis dolabrata*) Growing in Aomori Districts. (Bul.F.E.S.,NO.17, 1918)
1. On *Armillaria mellea*, SACC. Infecting the Roots of the *Akamatsu* (*Pinus densiflora*) (Bul.F.E.S.,NO.21, 1920)
1. Researches on the Canker-Disease of the *Sugi* (*Cryptomeria japonica*) Seedlings. (Bul.F.E.S.,NO.18, 1919)

4. TESTING AND ANALYSING FOREST PRODUCTS.

In the Forestry Experimental Station they carry on tests and analysis of forest products at the request of the Divisional Forestry Offices or the prefectural offices and expect to comply with public requests in future.

5. TESTING AND DISTRIBUTION OF TREE SEEDS AND SEEDLINGS.

(a) TESTING OF TREE SEEDS.

Since the announcement of the regulation on March 27th, the 3rd year of Taishō (1914), for testing tree seeds by the Forestry Experimental Station, in accordance with the ordinance of the Department of Agriculture and Commerce, they have been engaged in such purpose at the request of the general public.

(b) DISTRIBUTION OF TREE SEEDLINGS.

Various seedlings both domestic and foreign, which are cultivated in the Forestry Experimental Station, are being distributed or sold to public and private applicants at large, with the object of encouraging forestry.

6. EXPERIMENTS CONCERNING THE FORESTRY COMBINED WITH AGRICULTURE.

1. Forests and Wild Lands Used as Pasture of Cattle and Horses and Its Influences upon Them. (1st.Rep) (Bul.F.E.S.,NO.13, 1915)
1. Treatment Concerning the Production of Herbage in Wild Lands. (1st.Rep.) (Bul.F.E.S.,NO.13, 1915)
1. Irrigation of Wild Lands. (Bul.F.E.S.,NO.14, 1916)
1. On the Value of the *Kawaraketsumei* (*Cassia dimidiata*) as Fodder and Fertilizers. (Bul.F.E.S.,NO.16, 1918)
1. Comparative Studies of Moisture Contents in the Soils of Grasslands and of Bare-lands. (Bul.F.E.S.,NO 16, 1918)
1. Treatment Concerning the Production of Herbage in Wild Lands. (2nd. Rep.) (Bul.F.E.S.,NO.18, 1919)

1. On the Value of Tree-leaves and Herbage which are Useful as Fodder and Manure. (Bul.F.E.S.,NO.18, 1919)
1. Burning Experiment of Wild Lands. (1st. Rep.) (Bul.F.E.S.,NO. 21, 1920)
1. Forests and Wild Lands Used as Pasture for Cattle and Horses and Its Influences upon Them. (2nd, Rep.) (Bul.F.E.S.,NO.22, 1922)
1. Experiments with Fertilizers on Herbage of Wild Lands. (Bul.F. E.S.,NO.25, 1925)
1. Experiments on Fertilizers for the *Haji* (*Lespedeza bicolor*) (Bul.F. E.S.,NO.25, 1925)

7. FORESTRY SPECIMENS.

Specimens and samples kept at present are of timbers and bamboos, various wood specimens, forest by-products, zoological and botanical specimens, hunting products, implements and instruments concerning forestry, models, photographs, drawings and maps etc.

The collection is fairly extensive and their number are as follows :—

1. Samples of Timbers and Bamboos, and Wood-specimens.	
Samples of timbers and bamboos (Domestic)	1595
Do. (Foreign)	154
Wood-specimens (Domestic)	1721
Do. (Foreign)	1307
Worked timbers (Domestic)	904
Do. (Foreign)	269
1. Miscellaneous Timbers (Domestic)	11
1. Do. (Foreign)	163
1. Forest By-products and Manufactured or Worked Articles.	
By-products (Domestic)	314
Do. (Foreign)	461

Manufactured goods. (Domestic)	448
Do. (Foreign)	82
Worked articles. (Domestic)	11686
Do. (Foreign)	1116
1. Zoological and Botanical Specimens of Forestry.	
Tree seeds (Domestic)	2800
Do. (Foreign)	1150
Herbarium specimens of forest trees (Domestic)	8100
Do. (Foreign)	2800
Medicinal plants (Domestic)	361
Herbarium specimens of herbs (Domestic)	320
Fungi (Domestic)	750 (edible & parasitic fungi)
Do. (Foreign)	82
Birds and beasts (Domestic)	245
Insects (Domestic)	1500
Hunting products (Domestic)	201
Do. (Foreign)	40
1. Implements and Instruments Concerning Forestry.	
Surveying and tree measuring instruments (Domestic)	15
Do. (Foreign)	11
Planting instruments (Domestic)	41
Do. (Foreign)	49
Instruments for falling, logging and transportation of timbers. (Domestic)	113
Do. (Foreign)	29
Hunting instruments. (Domestic)	17
Do. (Foreign)	1
Miscellaneous instruments. (Domestic)	185
Do.	929

1. Models, Photographs and Drawings, Maps.

Models.	40
Photographs.	781
Drawings, maps.	431

1. Miscellaneous.

Disc.	18
Prize medals, tablets, show-cases &c.	1000

VI. FOREST METEOROLOGICAL STATIONS.

1. INTRODUCTION.

It is of utmost importance in the forest management and river improvement to be thoroughly acquainted with the meteorological conditions of the mountainous districts. After this claims, the plan of establishing the forest meteorological stations along the upper reaches of important rivers was put in practice since the 44th year of Meiji (1911) at the expense of the extraordinary funds for the river improvement works.

The business of these stations was commenced as soon as their buildings and equipments were completed and the whole plan was brought to completion by the end of the 8th year of Taishō (1919). At that time the stations numbered 39 in all, but subsequently seven of them were abolished during the 12th year of Taishō (1923) as the results of the administrative readjustment, and 16 more met also the same fate because of the same reason in the following years.

At present, therefore there remain 16 stations only.

For the superintendence of the works of these stations and the research works, one expert and two assistants are included to the staff of our Experimental Station.

2. SERVICE OF THE STATION.

In each station, there are arranged one assistant meteorologist and one employee to execute its general affairs.

Some watergauge and raingauge stations are attached to certain meteorological stations; and school masters, police contrables, and local volunteers are entrusted with the work of observations in these attached stations.

In each meteorological station, the observation of the general meteorological elements at this site are made after the rules of the meteorological services in this country.

The inquiries are made upon such matters as the distributions of rain in the basins of the related rivers and the water stages of discharges of these rivers and also upon the influences of the meteorological as well as the topographic conditions or the states upon the flow of river.

Investigations upon the damages due to meteorological causes in the designated districts are made also. The dispatches about the rainfall are made by telephone or telegraph, when the amount reaches such an extent that it may be expected to cause floods in the lower basins.

3. RESULTS OF THE OBSERVATIONS AND INVESTIGATIONS.

The results of the meteorological observations made at the stations are published annually in the "Report of the Forest Meteorological Stations" and the informations of noticable phenomena and the results of investigations are published (in japanese) from time to time in the "Special Report of the Forest Meteorological Stations" or the "Journal of Meteorology relating to Forestry and Hyderology".

These reports are distributed among the authorities keenly interested in the problems. The main contents of the reports already published are as under:—

(a) FOREST METEOROLOGY.

1. Comparative Studies of the Faculty of Forest and Deforested Land as Headwaters. (Bul. F.E.S., NO.12, 1914)
1. Comparison of Climatic Elements In and Out of Forest. (S. Rep. F.M.S., NO.1, 1914; NO.2, 1916; NO.4, 1917)
1. Comparison of Climatic Elements In and Out of Forest in Low-land. (S. Rep. F.M.S., NO.1, 1914)
1. Investigations of the Climates in Various Forest Regions. (S. Rep. F.M.S., NO.4, 1917)
1. On the Amount of Rain Sustained by Trees. (S. Rep. F.M.S., NO.4, 1917)
1. On the Relation between the Date of Sprouting and the Temperature of the Trunk of Tree. (Jour. F., NO.8, 1910)
1. Damages of Forest Trees by Snow. (Jour. F., NO.9, 1910)
1. On the Temperature and Humidity of the Air In and Out of Forest. (S. Rep. F.M.S., NO.5, 1919)
1. On the Evaporation of Water In and Out of Forest. (S. Rep. F.M.S., NO.5, 1919)
1. On the Amount of Rain Sustained by Crown. (S. Rep. F.M.S., NO.6, 1921)
1. On the Dates of Sprouting of Certain Trees at Chūzenji, Nikkō. (S. Rep. F.M.S., NO.6, 1921)

ABBREVIATIONS

Bul. F.E.S.	Bulletin of the Forestry Experimental Station.
Jour. F.E.S.	Journal of Forestry Experimental Station.
Jour. F.	Journal of Forestry.
S. Rep. F.M.S.	Special Report of the Forest Meteorological Station.
Jour. Met.	Journal of Meteorology Relating to Forestry and Hydrology.

1. On the Influence of Forest upon Climate. (Jour. F.E.S., NO.1, 1920)
1. On the Damages to Some Conifers by Coldness. (S. Rep. F.M.S., NO.7, 1922)
1. Results of the Comparative Observation of Some Climatic Elements In and Out of Forest at Tōkamachi. (S. Rep. F.M.S., NO.9, 1923)
1. On the "Kiamé" (Fog Caught by the Crown of Trees), at the Summit of Mt. Ōdaigahara. (Jour. Met., NO.2, 1923)

(b) MOUNTAIN METEOROLOGY.

1. On the Relation of Clouds to the Rainfall in Mountainous Districts. (Jour. F., NO.6, 1911)
1. On the Vertical Distribution of Rainfall on Mt. Mitsumine. (S. Rep. F.M.S., NO.4, 1917; NO.5, 1919)
1. On the Relation of Clouds to the Weather of a Mountainous District. (Jour. F., NO.2, 1912)
1. On the Lapse Rate of Air Temperature over Mountainous Districts and Plateaus in Japan. (S. Rep. F.M.S., NO.7, 1922)
1. Results of the Meteorological Observations on Mt. Nantai. (S. Rep. F.M.S., NO.4, 1917; NO.8, 1922)
1. Results of the Observations of Rainfall on Mt. Haruna. (S. Rep. F.M.S., NO.4, 1917; NO.5, 1919; NO.8, 1922)
1. Results of the Observations of Rainfall on Mt. Shiraga. (S. Rep. F.M.S., NO.5, 1919; NO.6, 1921; NO.7, 1922; NO.8, 1922)
1. On the Fog in the Mountainous and Hilly Districts (Jour. Met., NO.1, 1923)
1. On the Avalanche. (Jour. Met., NO.1, 1923)
1. Estimation of the Mean Direction of Gales at a Locality. (Jour. Met., NO.2, 1923)
1. On the Rime and Glazed Frost Observed on Mt. Ōdaigahara. (Jour. Met., NO.2, 1923)
1. Avalanches in the Northern Districts of Honshū. (Jour. Met., NO.2, 1923)

1. Fog at Chizu. (Jour. Met., NO.3, 1924)
1. Forest Fire at Hōrai-ji, Aichi Prefecture, in March, 1924. (Jour. Met., NO.5, 1924)

(c) HYDROLOGY

1. On the Flood Stage of the River Tone and Rainfall in Its Drainage Area. (S. Rep. F.M.S., NO.1, 1914)
1. Researches on the Flood Prediction of the River Arakawa. (S. Rep. F.M.S., NO.3, 1917)
1. Experiment on the Amount of Water Retained in Fallen Leaves. (S. Rep. F.M.S., NO.4, 1917)
1. Relation between Water Stages and Rainfall in a Tributary of the River Chikugo. (S. Rep. F.M.S., NO.4, 1917)
1. On the Rainfall and Water Stages in the River Arakawa. (S. Rep. F.M.S., NO.4, 1917)
1. Relation between the Water Temperature of a Spring and Earth Temperature. (S. Rep. F.M.S., NO.5, 1919)
1. Relation of Rainfall at Ikawa to the Water Stage of the River Ōi. (S. Rep. F.M.S., NO.6, 1921)
1. Effects of Rain upon the Variations of Earth Temperature. (S. Rep. F.M.S., NO.6, 1921)
1. On the Water Stage of Lake Chūzenji and the Coefficient of Run-off of Its Tributaries. (S. Rep. F.M.S., NO.3, 1917; NO.7, 1922)
1. Temperature of the Water of Lake Chūzenji. (S. Rep. F.M.S., NO.7, 1922)
1. Survey of the Amount of Discharge of the River Usui. (Jour. Met., NO.1, 1923)
1. On the Discharge of the River Mizusashi. (Jour. Met., NO.1, 1923)
1. On the Amount of Melted Snow. (Jour. Met., NO.1, 1923)
1. Floods in the Year 1923. (Jour. Met., NO.1, 1923)
1. Floods During the Snow Season in the Year 1924. (Jour. Met., NO.2, 1923)

1. Relation between the Water Stage of the River Chikugo and the Rainfall at Morinachi. (Jour. Met., NO.3, 1923)
1. Floods in the Year 1923. (Jour. Met., NO.3, 1924)
1. Landslips Occured about Shiratori in Gifu Prefecture. (Jour. Met., NO.3, 1924)
1. Collapse of the Bank of the River Usui. (Jour. Met., NO.3, 1924)
1. Collapses Occured about Ayatamura in Kumamoto Prefecture. (Jour. Met., NO.3, 1924)
1. Observation of the Water Temperature of Rivers. (Jour. Met., NO.4, 1924)
1. Floods in the Later Half of the Year 1923. (Jour. Met., NO.4, 1924)
1. Landslips Occured about Innai, in Akita Prefecture, during the Year 1923. (Jour. Met., NO.4, 1924)
1. Observation on the Evaporation of Water from Surface Soil. (Jour. Met., NO.4, 1924)
1. On the Evaporation of Water from Soil. (Jour. Met., NO.5, 1924)
1. On the Prediction of the Water Stage of the River Chikugo by the Rain in the Headwaters. (Jour. Met., NO.5, 1924)
1. On the Water Stage in the Upper Part of River and Their Method of Statistics. (Jour. Met., NO.5, 1924)
1. Estimation of the Amount of Seepage Flow of Lake Chūzenji. (Jour. Met., NO.5, 1924)
1. On the Draught of the Nikkō District and Water Stage of Lake Chūzenji in the Winters of 1923—1924. (Jour. Met., NO.5, 1924)
1. Landslips in Usuitōge in June, 1924. (Jour. Met., NO.5, 1924)
1. Flood of the River Iwaki, on June 24th, 1924. (Jour. Met., NO.5, 1924)

(d) GENERAL METEOROLOGY.

1. Rainstorm at Nikkō in September, 1915. (S. Rep. F.M.S., NO.4, 1914)

1. Rainstorm at Motoyama on October 7th, 1915. (S. Rep. F.M.S., NO.4, 1914)
1. Results of Phenological Observations. (Jour. F., NO.7, 1918; NO. 8, 1919; NO.12, 1920)
1. Climatic Conditions in the Drainage Areas of the River Tone and Other Nine Prominent Rivers in the Year 1916 and 1917. (S. Rep. F.M.S., NO.5, 1919)
1. On the Influence of Lake Chūzenji upon the Air Temperature in the Neighbourhood of the Lake. (S. Rep. F.M.S., NO.5, 1919)
1. On the Distribution of Rainfall in the Valley of the River Yoshino. (S. Rep. F.M.S., NO.8, 1922)
1. On the Relation between the Rainfalls and the Directions of Local Winds at Naruko. (S. Rep. F.M.S., NO.10, 1923)
1. On the Relation between the Rainfalls and the Directions of Local Winds at Numakunai. (S. Rep. F.M.S., NO.10, 1923)
1. On the Types of Rain Observed at Sasayama. (S. Rep. F.M.S., NO.10, 1923)
1. On the Fog in Kitaoguni. (Jour. Met., NO.2, 1923)
1. On the Difference Due to the Topographic Conditions in the Amounts of Rain. (S. Rep. F.M.S., NO.10, 1923; Jour. Met., NO.1, 1913)
1. On Ice Columns Grown in a Water Pot. (Jour. Met., NO.2, 1923)
1. Dense Fog on the Northern Sea. (Jour. Met., NO.2, 1923)
1. On the "Kasumi", a Sort of Haze in Spring. (Jour. Met., NO.2, 1923)
1. On the Snowfall in the Winters 1922—1923. (Jour. Met., NO.2, 1923)
1. Glazed Frosts at Fujimi and Kiso. (Jour. Met., NO.2, 1923)
1. Density of Snow at Tōkamachi. (Jour. Met., NO.2, 1923)
1. Damages in Nikkō Done by a Gale on September 24—25th, 1923. (Jour. Met., NO.3, 1924)
1. Earthquake on September 1st, 1923. (Jour. Met., NO.3, 1924)

1. Snow and Its Melted Water. (Jour. Met., NO.4, 1924)
1. Evaporation from a Pond. (Jour. Met., NO.4, 1924)
1. Comparison of Evaporation of Water from Various Vessels. (Jour. Met., NO.4, 1924)
1. On the Effects of the Measuring Instruments upon the Evaporation of Water. (Jour. Met., NO.4, 1924)
1. On the Visibility. (Jour. Met., NO.4, 1924)
1. Climatic Conditions in the Mountainous Districts in Summer and Autumn, 1924 (Jour. Met., NO.4, 1924)
1. Earthquake at Habuto in Fukushima Prefecture, on January. 16th, 1924. (Jour. Met., NO.4, 1924)
1. A Gale and Trees Fallen by It on September 24—25, 1923; (Jour. Met., NO.4, 1924)
1. Climatic Conditions in the Mountainous Districts from Winter, 1923 to Spring, 1924. (Jour. Met., NO.5, 1924)
1. Frost Damages in the Northeastern Districts in the Late Spring, 1924. (Jour. Met., NO.5, 1924)
1. Abnormal "Baiu", the Rainy Season, in 1924. (Jour. Met., NO. 5, 1924)
1. A Whirl Wind at the Foot of Mt. Akagi in June, 1924. (Jour. Met., NO.5, 1924)
1. Hail Storm at Mido-mura, Iwate Prefecture, on June 18th, 1924. (Jour. Met., NO.5, 1924)

THE LIST OF FOREST METEOROLOGICAL STATIONS AND ATTACHED RAINGAUGE AND WATERGAUGE STATIONS.

Meteorological Station	Locality	Attached Stations	
		Rain- gauge	Water- gauge
Kakumodate	Senpoku-gōri, Akita Prefecture	-	-
Nozawa	Kawanuma-gōri, Fukushima Prefecture	-	-
Shirakawa	Nishi-shūmukawa-gōri, Fukushima Prefecture	-	3
Itaho	Gunma-gōri, Gunma Prefecture	1	2
Tōkamachi	Naka-uonuma-gōri, Niigata Prefecture	-	-
Katsuyama	Ōno-gōri, Fukui Prefecture	2	2
Kiso	Nishi-chikuma-gōri, Nagano Prefecture	-	-
Neo	Motosu-gōri, Gifu Prefecture	1	-
Ikawa	Abe-gōri, Shizuoka Prefecture	-	1
Chizu	Hattō-gōri, Tottori Prefecture	-	-
Tōkaichi	Sesan-gōri, Hiroshima Prefecture	-	-
Motoyama	Nagaoka-gōri, Kōchi Prefecture	1	-
Yusuhara	Takaoka-gōri, Kōchi Prefecture	1	3
Kitaoguni	Aso-gōri, Kumamoto Prefecture	4	4
Shimaito	Kami-masuki-gōri, Kumamoto Prefecture	-	-
Yadake	Kuma-gōri, Kumamoto Prefecture	1	5