

Agricultural Science Libraries in Japan

日本 の 農 学 系 図 書 館

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要 旨

日本で農業図書が出版されたのは古いことであるが、農学図書館はごく最近の発達に属する。明治初年に札幌農学校と駒場農学校が設立された当時、勸農局の規定中、農学校の諸掛のうちに図書を取扱う掛が定められたが、これが大学の農学図書館員の嚆矢と言えよう。また同じころ、山林局の文書課に図書掛があったし、農商務省が発足したときには、庶務局記録課で図書その他の記録文書を保管したばかりでなく、翻訳、編集、刊行の事務を行っていた。これらは現在の農林省図書館や林野庁の林業資料館の始まりと見做すこともできよう。本稿は現在諸大学、農林省、その他の国公立農学系研究機関のもつ主な図書館・室を概観し、今後の発展の見透しを述べたものである。



現在36農学部とその他の農学系学部を合わせると、国公立の大学に53の農学系学部があるが、その多くは研究室や各講座に図書その他の資料が分散し、学部図書館・室と呼ばれるものがあるが、そこは余り利用されない図書を納めた倉庫のような場合が多い。このようなときに、新しく建設された東京大学農学部図書館が、建築上欠点はあるけれども、教授達と館員の協力と努力によって、サービスをすする図書館として生まれかわりつつあることは、農学分野の大学の図書館としては画期的なできごとで、今後の発展が期待される。

農商務省時代に記録課が取扱っていた図書館的業務は、後に文書課に移され、図書掛は図書の保管を専一に扱うようになった。更に現在の農林省調査統計局図書課となるまでには、若干の変遷を経たわけであるが、初期に担当していた翻訳とか、報告書編集というような、現在ドキュメンタリストの仕事の一部と考えられる業務は、だんだんに除外されていった。現在農林省図書館は同時に国立国会図書館の支部図書館でもあり、農政関係の資料を最も多く収集した中央図書館的性格のものであるが、林野庁の林業資料館と水産庁の水産資料館は、農林省図書館とは別の機構である。

国公立の農学系試験研究機関は、農林省所轄29場・所をはじめとしてその他の国立機関があり、都道府県に属するものとして312場・所があり、私立の研究機関は小さな会社の研究室まで数えれば相当数にのぼる。このうち主要なものは農林省所属の試験研究機関であって、多くは資料情報サービスが充分

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に行なわれているとは言いがたいが、図書館、資料室を整備し職員の研修を重ねて積極的なサービスを行なおうとする動きが最近ようやく活発になってきた。ことに、このような動きを見て調整の役割を果たしつつある農林水産技術会議の今後の動向は注目すべきものがある。

大学の農学系学部と比べて、国公立の農学系試験研究機関では、研究費を2倍以上も費しているのに、1人当たり図書費は5分の1に過ぎない。国立の試験研究機関の1人当たり研究費は、国立大学の農学系学部と比べて多いくらいであるのに、1人当たりの図書費は5分の2ほどである。このような点からみても、また農林水産技術会議事務局の行なった調査等によっても、国公立の農学系試験研究機関の研究者が図書その他の資料を通じて農学情報を入手する場合、はなはだしい困難に当面していることがわかる。

将来、農林センターが設立される場合、試験研究機関の研究者等に対し、この分野の資料情報サービスを提供するセンターは不可欠のものである。このような情報センターが発達すれば、単に農林省所属の試験研究者のみならず、国公立大学の農学系教員や研究者も、都道府県立の試験研究場・所の研究者も、会社等の私立の機関の研究員も、裨益するところ多大であろう。

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I. Introductory Note

The oldest agricultural publication in Japan is said to be Yasusada Miyazaki's *Nogyo Zensho* (*Handbook of Agriculture*), published in 1696. Many agricultural books followed, some of them intended for the then ruling samurai class and others for practicing farmers.¹⁾ But agricultural librarianship was virtually non-existent in Japan until after 1868, when the new Meiji Government adopted policies of national modernization.

When we trace back the roots of agricultural libraries in Japan, we find that there were two origins, one in the embryonal agricultural colleges and the other in the precursor of the present Ministry of Agriculture and Forestry.

This paper surveys the past century of developments in outstanding agricultural libraries and tries to look ahead on the basis of current trends among Japanese agricultural librarians.

II. Agricultural Libraries of Universities

Two agricultural schools were opened early in the Meiji era. One, in Hokkaido, called the Sapporo Agricultural College, was founded in 1876 with Prof. William Smith Clark, from Amherst Agricultural College, Mass., as vice-director. This was to develop into the present Faculty of Agriculture of Hokkaido University. The other, in Tokyo, called the Komaba Agricultural College, was established in 1877 and was to evolve into the present Faculty of Agriculture of Tokyo University. Both at the beginning were under the control of the Ministry of Home Affairs. Even before their foundation, it is recorded in a governmental document that in January, 1874, the officials in charge of agricultural improvement asked permission to purchase agricultural books as soon as they could be found because such books were rare at that time.²⁾ From another official document, dated 19 March 1875, it is gathered that a site for stacks for a book collection and a museum of natural history had been decided on the Komaba campus.³⁾

According to the regulations for agricultural

colleges issued in 1877, the staff members were divided into the following eight divisions: Academic Affairs, Chemistry, Cattle Diseases, Plant Pathology, Stock-Farming, Natural History Museum and Botanical Garden, Books and Instruments (書器), and Business. It was the first time in an official statement of the new Government for a person to be designated as in charge of a book collection. The duties of the person in charge of the school's "Books and Instruments" were described as "to take care of books and instruments and machines for class use, to sort them and keep records of them in full detail, and preserve them."⁴⁾

It is not clear when the room called the Library of the Komaba Agricultural College was opened, but it is presumed that it was between January of 1878, when the school's opening ceremony was held, and May of 1879, when a temporary regulation for the reading room was issued. The college was transferred to the jurisdiction of the Ministry of Agriculture and Commerce in 1881. In 1882, the Tokyo College of Forestry, another school, was opened. In 1886, both of these colleges were amalgamated into the Tokyo College of Agriculture and Forestry, which in 1890 was transferred to Tokyo Imperial University and became its Agricultural College. In 1919, its name was changed to the Faculty of Agriculture of the University. The Komaba Agricultural College had a collection of 5,519 volumes in 1883, which had increased to 21,597 volumes at the time of the amalgamation with Tokyo Imperial University. Today the University's Faculty of Agriculture is proud of a collection of approximately 200,000 volumes despite having lost all of its library in 1945 by war damage, making it the largest agricultural library in the nation.⁵⁾ Its initial independent library building was built in 1908 with a space of approximately 200 square meters.⁶⁾ In 1959, the faculty initiated a movement to build a new central library which, with a grant from the Rockefeller Foundation, donations from alumni and national subsidies, resulted in a building with a total space of 2,347 square meters on the Hongo campus which was opened in 1965. Although the new building has some physical

deficiencies, the librarians aim to provide ideal services.

The other of the original twin agricultural schools, Sapporo Agricultural College, developed in a different way. Before 1868, Hokkaido was relatively underdeveloped. The new Meiji Government regarded its agricultural and industrial development as very important. It invited from the United States a group of advisers headed by Horace Capron, former Secretary, Department of Agriculture, and made every effort to develop the island under the guidance of these Americans. While Komaba Agricultural College was in its embryonic stage under the influence of English teachers, who later were replaced by Germans, in Sapporo such American teachers as Clark and his colleagues, William Wheeler and David P. Penhallow, did the early teaching.⁷⁾ Its library had 19,736 volumes according to a report published in 1898.⁸⁾ The Sapporo Agricultural College became the Agricultural College of Tohoku Imperial University in 1907 and in 1919 the Agricultural College of Hokkaido Imperial University before finally developing into the present Faculties of Agriculture, Veterinary Medicine, and Fisheries of Hokkaido University, with approximately 400 students annually enrolled in its undergraduate and graduate programs. Its library had 130,031 volumes as of April, 1963, exclusive of 6,784 volumes on veterinary medicine.⁹⁾ Library services, however, are still underdeveloped.

Also worthy of special mention are the agricultural libraries of Kyoto University and Kyushu University, which as of April, 1964, had 172,460 and 153,696 volumes respectively.¹⁰⁾ Both are on the level of Hokkaido University in terms of library services.

Most of the agricultural colleges supported by local governments or private institutions have much weaker collections and are poorer in library services than those in national universities. One exception is the private Tokyo University of Agriculture, which has a long tradition in education for agricultural sciences. Its library had 136,163 volumes as of April, 1964.

Research in agricultural sciences has been

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carried on by not only agricultural colleges but also many special institutes attached to national universities, such as the Agricultural Research Institute for Applied Microbiology of Tokyo University and the Research Institute of Food Science and the Wood Research Institute of Kyoto University. Notable among them is the (Ohara) Institute for Agricultural Biology of Okayama University, which originally was a private institute founded by the late Mago-saburo Ohara in 1914. Since 1952, it has been a part of the university. The size of its library collection was reported in its 1961 bulletin as 124,576 volumes, including the collection of 11,730 books once owned by the late Dr. Wilhelm Pfeffer, Professor of plant physiology at the University of Leipzig.

As of April, 1964, the total number of universities in Japan reached 291, of which 72 were national, 34 prefectural and 185 private.¹¹⁾ In them were 53 faculties or colleges in agricultural sciences classified as shown in Table 1.¹²⁾

Among these 53 agricultural faculties or colleges, 14 have graduate programs, and accordingly their library collections are of higher standards. In general, however, the collections, except for the six already mentioned, are very

poor. Most of them range from 10,000 to 40,000 volumes, but there are 40,871 at the Japan College of Veterinary Medicine and Stock-raising, 40,838 under the Faculty of Agriculture of Tottori University, 43,652 under the Faculty of Agriculture of Nagoya University, 59,497 at the Agricultural College of the Tokyo Institute of Agriculture and Technology, 59,845 at Hyogo (Prefectural) Agricultural College, and 67,078 under the Faculty of Agriculture and 34,659 under the Faculty of Fisheries of Kagoshima University, giving a combined total of 111,737 volumes.¹³⁾ Of the national universities that have an agricultural faculty or college, 22 have libraries which are branches of the main libraries. Some of them have something like a storage library for little-used materials, with other materials scattered among the faculty offices and laboratories. In the other cases the agricultural collections are included as divisions in the main libraries, or what is nominally the library is nothing more than the scattered materials in the faculty offices and laboratories. The Tokyo University Agricultural Faculty's new library is the first attempt among these universities to centralize all agricultural literature and provide complete library services.

Table 1. Number of Faculties or Colleges of Agricultural Sciences by Organization.

Name of Faculty	National Univ.	Prefectural Univ.	Private Univ.	Total
Agriculture	27	4	5	36
Horticulture	1	—	—	1
Veterinary and Animal Husbandry	—	—	1	1
Veterinary	1	—	1	2
Animal Husbandry	1	—	—	1
Agriculture and Veterinary	—	—	1	1
Dairy Farming	—	—	1	1
Fisheries	4	1	—	5
Fisheries and Animal Husbandry	1	—	—	1
Marine Sciences	—	—	1	1
Fisheries and Stock-raising	1	—	—	1
Textile Science	2	—	—	2
Total	38	5	10	53

III. Ministry of Agriculture and Forestry Library, etc.

At the beginning of the Meiji Government, agricultural and forestry matters were handled by bureaus belonging to the Ministry of Home Affairs. It is recorded that the Forestry Bureau was established in the Ministry of Home Affairs in May of 1878 with four departments, one of which handled books, statistics, reports, copy reproduction, etc.¹⁴⁾ The duties of "persons in charge of books" were (1) to keep the Government's forestry investigation books and stock maps, (2) to keep daily, monthly and annual records on increases and decreases of primary and secondary products and of areas of forest land in each governmental forest district, (3) to arrange in order and preserve various types of books and to circulate them, (4) to arrange in order and preserve official documents of various Ministries and local governments and correspondence between outstation agencies, (5) to handle the publishing of books edited by the Bureau and the translating of western materials, and (6) to edit the *Sanrinkyoku Beppo* (*Separate Reports of the Forest Bureau*).¹⁵⁾ After the Ministry of Agriculture and Commerce was established, in 1881, the work on books taken over from the Ministry of Home Affairs was handled by officials in the Records Section. According to the administrative organization decided in June of 1881, the Records Section belonged to the Secretariat, but five months later it was transferred to the Bureau of General Affairs and its duties were described as follows: "Records Section—to preserve all books and recorded materials in the Ministry and handle the work of translation of foreign books, compilation of annual reports and publishing."¹⁶⁾ Leaders of the new Government were very conscious of the importance of what they were doing and were very eager to preserve not only books but every document which would tell each step of their achievements.¹⁷⁾ It was remarkable that at this early stage "librarians" were engaged in jobs of translation, editing, and publishing, as well as maintaining collections of books and documents.

The Records Section was divided in 1886 into subsections of Compilation, Book Collections, etc.¹⁸⁾ In 1907, the duties were transferred to the Archives and Documents Section,¹⁹⁾ which, among other duties, carried out "work on preservation and publishing of books, and work on compilation and preservation of official documents."²⁰⁾ The duty of translation had been dropped. In the Kanto earthquake and fire of 1923, it lost the whole of its collection of approximately 80,000 volumes, but fortunately most of the books subsequently acquired were saved from damage in World War II. The present Ministry of Agriculture and Forestry Library is under the Statistics and Survey Division of the Ministry and is at the same time one of the 30 branches of the National Diet Library.

The library collection was augmented in 1955 by the donation of the entire holdings of the Japan Agricultural Library, which had been formed with collections of such private agricultural organizations as the Industrial Unions Central Cooperative Bank for Agriculture and Forestry, the Imperial Agricultural Association, and the Industrial Unions Central Association. The library has been receiving through international exchange services foreign materials from more than 100 organizations in about 50 countries. The size of the collection was approximately 137,000 volumes as of November, 1963.

The Ministry Library issues the *Norin Tosho Shiryo Geppo* (*Monthly Bulletin of Agricultural and Forestry Library Materials*) and has occasionally compiled and published various bibliographies on agricultural topics. It serves mainly the administrative officials of the Ministry and therefore is strong in literature on agricultural administration and policies. It has the sixth largest collection among the 30 branches of the National Diet Library and renders better services to its users than most of the others, but it shares with the other branches a shortage of qualified personnel and financial support.

The Fisheries Agency of the Ministry of Agriculture and Forestry has developed its own library. After World War II, when the Govern

ment needed all information materials necessary to establish national fisheries policies, the Agency began to collect informative and historical documents. By the time the change in the national fisheries system was accomplished in 1953, the materials collected had reached an enormous amount. On receiving the entire collection of the Fisheries History Research Section of the Nippon Jomin Bunka Kenkyujo (Japan Research Institute for Common People's Culture) and Ei-ichi Taketomi's unique collection of materials on the polar regions, the Agency established in 1955 the Fisheries Agency Fisheries Information Materials Center to preserve and make use of these materials and continue the collecting of similar materials.²¹⁾

Another library within the Ministry but administratively independent from the Ministry of Agriculture and Forestry Library is the Forest Agency Information Materials Center, which has a great store of pamphlets and other materials strong in the fields of history of Japanese forestry and forestry administration. In 1958 an information material room was provided in the Survey Section of the Forestry Agency, and this became the Forestry Information Materials Center in April, 1965. Most of its materials concern forestry in the Tokugawa era, forestry administration, and the history of forestry administration, including many archival materials. The new acquisition policy of the center is to acquire current information on forestry economics, such as timber market conditions.

It should be noted that when a specialist seeks materials on Japanese public administration of agriculture in a broad sense, he probably should go to the three sources of information and materials in the Ministry, the first the strongest in general agricultural literature and current domestic and foreign governmental documents, the second strongest in fisheries information materials of the pre-war and Occupation periods, and the third strongest in literature on forestry administration, the forestry industry, etc., but none of them is strong in technical literature.

IV. Libraries of National and Prefectural Agricultural Experiment and Research Institutions

As important as the faculties of agriculture of universities and agricultural colleges and agricultural research institutes attached to universities are the agricultural research institutions and experiment stations established by the national and local governments. Outstanding among them are the following 29 belonging to the Ministry of Agriculture and Forestry:

- (1) National Institute of Agricultural Sciences
- (2) Central Agricultural Experiment Station
- (3) Hokkaido National Agricultural Experiment Station
- (4) Tohoku Agricultural Experiment Station
- (5) Hokuriku Agricultural Experiment Station
- (6) Tokai-Kinki Agricultural Experiment Station
- (7) Chugoku Agricultural Experiment Station
- (8) Shikoku Agricultural Experiment Station
- (9) Kyushu Agricultural Experiment Station
- (10) National Institute of Animal Industry
- (11) Horticultural Research Station
- (12) Tea Research Station
- (13) Agricultural Civil Engineering Research Station
- (14) National Research Institute of Agriculture
- (15) Sericultural Experiment Station
- (16) National Institute of Animal Health
- (17) Institute of Radiation Breeding
- (18) Food Research Institute
- (19) Plant Virus Research Institute
- (20) Forest Experiment Station
- (21) Hokkaido Regional Fisheries Research Laboratory
- (22) Tohoku Regional Fisheries Research Laboratory
- (23) Tokai Regional Fisheries Research Laboratory
- (24) Nankai Regional Fisheries Research Laboratory
- (25) Seikai Regional Fisheries Research Laboratory
- (26) Japan Sea Regional Fisheries Research Laboratory
- (27) Inland Sea Regional Fisheries Research

Laboratory

(28) Freshwater Fisheries Research Laboratory

(29) Pearl Research Laboratory

After reorganization and integration of the Agricultural Experiment Station, which was founded in 1893, the Live Stock Experiment Station, founded in 1916, the Horticultural Experiment Station, founded in 1921, and the Land Reclamation Research Institute, founded in 1946, the National Institute of Agricultural Sciences was established in 1950. In 1961, it underwent reorganization, detaching its departments of horticulture, agricultural engineering, and livestock and zootechnical chemistry, which became the Horticultural Research Station, the Agricultural Engineering Research Station, and the National Institute of Animal Industry respectively. The institute conducts fundamental research in agriculture and agricultural techniques, studies problems common to several regions or relating to the whole country, and carries out research for which concentrated use of facilities at a centralized location is most effective. The institute's library has the oldest history and accordingly the largest collection among the national agricultural research institutions (see Table 2).

According to the regulations of the Agricultural Experiment Station issued in 1899, one of

its departments, the Reports Division, was "to handle the editing of experiment reports of the main station and its branches, editing of special reports, summary reports of the station's experiment reports and other reports, the publishing of various reports, and the keeping of records of experiments, reports of investigators, reports of staff members of the station and investigators, reports of the station, and reports and documents donated by local governments."²²⁾ In 1904, the regulations were amended to stipulate that the duties of the Reports Section were "to edit and publish reports on experiments, investigations, etc., and to keep books, reports and other documents."²³⁾ When the regulations for the National Institute of Agricultural Sciences were issued by the Ministry in 1950, it was stated that its Library Section would function under the Department of General Affairs and would be responsible for work concerning books and publishing. The 1953 regulations of the institute divided the Library Section into two subsections, Library and Reports, and described as the duties of the Library Subsection staff the acquisition, processing, maintenance and use of books and other materials and as the duties of the Reports Subsection staff the editing, publishing, exchange and maintenance of reports on surveys, experiments and re-

Table 2. Library Collections of Some National Research Institutions of Ministry of Agriculture and Forestry, End of 1963-64.

Name of Institutions	Book Collections (in volumes)	Periodicals Acquired (in titles)		
		Japanese	Foreign	Total
Nat. Inst. Agr. Sci.	128,665	625	590	1,215
Cent. Agr. Exp. Sta.	20,000	378	137	515
Nat. Inst. Anim. Ind.	20,000	163	578	741
Hort. Res. Sta.	10,000	460	140	600
Agr. Civil Eng. Res. Sta.	8,300	42	30	72
Nat. Res. Inst. Agr.	56,378	766	127	793
Ser. Exp. Sta.	20,000	461	173	634
Nat. Inst. Anim. Health	16,000	541	587	1,128
Food Res. Inst.	5,730	317	64	381
Forest Exp. Sta.	55,000	1,051	580	1,631
Tokai Reg. Fish. Res. Lab.	8,443	156	192	348

search.²⁴⁾ These regulations were amended again in 1961 as follows:

Article 12 The following three subsections are provided in the Library Section: (1) Books Subsection, (2) Reports Subsection, and (3) Information Materials Subsection.

Article 13. The duties of the Books Subsection are as follows: (1) Acquisition, processing and maintenance of books, and (2) Circulation of books.

Article 14. The duties of the Reports Subsection are as follows: (1) Editing and publishing reports on surveys, experiments and research by the Institute, and (2) Distribution of the publications of the Institute.

2. The duties of the Information Materials Subsection are as follows: (1) Acquisition of information materials needed for experiments and research, (2) Processing, exchange and making use of acquired materials, and (3) Collecting information about experiments and research, and publicity.²⁵⁾

These regulations for librarians have been presented here in full detail because the writer believes that the changes in them reflect the changes in the attitudes toward librarians of the administration of the research institution.

The National Institute of Animal Industry Library and the National Institute of Animal Health Library have been trying hard to acquire more titles of foreign periodicals (see Table 2). The latter developed excellent services to its users by putting a library-minded doctor of veterinary medicine in charge of its library and information services. Probably it is the best library in the country in the field of agricultural sciences in terms of services to meet researchers' demands. It published in 1963 a list of "*Serials in Foreign Languages in the Collection of the National Institute of Animal Health Library.*"

Another outstanding library in this group is that of the National Research Institute of Agriculture. Although established only in 1946, it has developed its collection (see Table 2) more rapidly than others to meet the needs of the researchers of the institute, whose objective was "to examine ways and means of reconstructing Japanese agriculture in the face of

socio-economic difficulties and changes brought about by World War II" and is now "to tackle the problems of how and in what direction to achieve, in the new economic development and expected social changes, modernization of agriculture, including structural changes, and to mobilize the rural population and those who are concerned with agriculture to channel their wisdom and enthusiasm into achieving modernization."²⁶⁾ Its library is housed in a new building with a space of approximately 300 square meters completed in 1959.

Another library of importance in this group is that of the Forest Experiment Station, which was founded in 1878. The collection is the largest in the field of forestry (see Table 2).

Other national research institutions fully or partially concerned with experiments and research in agricultural sciences which do not belong to the Ministry of Agriculture and Forestry are:

Research Institute of Brewing, belonging to the Tax Administration Agency, Ministry of Finance

National Institute of Genetics, Ministry of Education

Fermentation Research Institute, Ministry of International Trade and Industry

Textile Research Institute, the same Ministry

These have some thousands of volumes in their libraries, which of course emphasize their particular interests.

The Japan Monopoly Corporation's Central Research Institute has a library of more than 17,000 volumes and is currently acquiring about 450 periodicals. Of the corporation's six local tobacco experiment stations, those in Hatano, Utsunomiya and Kagoshima each have more than 3,000 volumes.²⁷⁾

On the level of local government, there are many experiment stations and research institutes of agriculture, animal husbandry and industry, horticulture, tea cultivation and processing, sericulture, processing of agricultural products, forestry and fisheries. Their distribution is shown in Table 3.²⁸⁾

Of all these more than three hundred prefectural agricultural experiment stations, the

Table 3. Distribution of Prefectural Agricultural Sciences Experiment and Research Stations.

Region	Agriculture	Animal Husbandry	Horticulture	Tea Cultivation	Sericulture	Process Industry	Forestry	Fisheries	Total
Hokkaido	2	2	—	—	—	—	1	2	7
Tohoku	6	9	4	—	5	1	5	10	40
Hokuriku	4	4	1	—	3	1	4	4	21
Kanto	7	11	2	1	7	2	6	8	44
Chubu	6	14	4	1	8	2	6	7	48
Kinki	6	11	1	2	4	—	4	6	34
Chugoku	5	12	1	—	5	3	5	8	39
Shikoku	4	8	2	—	3	2	4	4	27
Kyushu	8	14	6	2	4	1	5	12	52
Total	48	85	21	6	39	12	40	61	312

only ones with libraries of 20,000 volumes or more are Ibaraki's, with 25,800, Shizuoka's, with 25,000, Yamaguchi's, with 22,000, and Okayama's, with 20,000. Only seven others have more than 10,000 volumes, and many have fewer than 1,000. They usually are poor not only quantitatively but also qualitatively.

V. Private Agricultural Collections Other than Agricultural Libraries of Private Universities

Library collections of the Industrial Unions Central Cooperative Bank for Agriculture and Forestry, the Imperial Agricultural Association, the Industrial Unions Central Association, the Rural Relief Association and other organizations were amalgamated to form the Agricultural Economics Library in 1942, which after the war made a new start as the Japan Agricultural Library in 1946. It was the largest private agricultural library. As previously stated, this entire collection was given to the Ministry of Agriculture and Forestry in 1950 and is now housed in the Ministry's library.

An analysis of all the institutions listed in the *Directory of All-Japan Research Institutions, 1964* reveals that more than 145 private foundations, associations, and companies have facilities to conduct agricultural scientific research

and investigation and collect information materials. Breakdown by subject fields shows 35 concerned with agricultural chemistry and the chemical industry, 44 with the food industry, two with horticulture, 13 with sericulture and the textile industry, one with forestry, 20 with wood and the pulp industry, eight with fisheries and the marine food industry, ten with animal industry and veterinary, and more than 15 with basic biological sciences which include agricultural fields. There are other private research institutions not listed in this directory, but probably none with notable libraries.

The Nippon Agricultural Research Institute, a private foundation in Kyoto, has been conducting research on a variety of agricultural subjects. Its library may be the largest (approximately 35,000 volumes) among those of private agricultural research institutes. The Nippon Institute for Biological Science, a private foundation interested in animal health, has 9,000 books on animal physiology and pathology. The Paper Museum in Oji, Tokyo, founded in 1950, has a unique collection on paper and the paper industry which includes more than 3,000 books, 2,000 pictures related to the paper industry, 6,000 specimens of Japanese paper and 2,500 items made of paper. Its library is always used by paper research specialists. The Central Research Laboratory of the Nippon Fishing In-

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dustry Co. Ltd. has a collection of about 12,000 books in the fields of fisheries, zoology, botany, marine science and food industry. The Institute for Scientific Research of the Noda Shoyu Co. Ltd., producing Kikkoman soy sauce, has a good collection of books on fermentation and food science. The Central Research Laboratory of the Ajinomoto Co., Inc., producing monosodium glutamate, has in its library about 13,000 books and 400 titles of periodicals on protein, the amino acids and related subjects. These special libraries of companies are members of a group strongly interested in developing information service techniques.

As a whole, however, the private agricultural science libraries are weak in terms of collections as well as services. Most research workers in companies interested in agricultural scientific information are therefore dependent on university or governmental agricultural research institutions and libraries.

VI. New Horizon for Agricultural Science Libraries in Japan

The *Statistical Survey of Research in Japan* conducted in 1964 by the Bureau of Statistics,

Office of the Prime Minister, on 50 colleges and universities and 29 national and 307 local governmental research institutes in the fields of agricultural sciences, shows the number of their research workers, total expenditure for research, investment in library materials, etc.²⁹⁾ The findings are summarized in Table 4.

It is interesting to see that in the agricultural sciences, differing from other fields in the natural sciences, governmental research institutes spend more than twice as much on research as do agricultural colleges and faculties of universities, while the latter have invested in library materials per person approximately five times as much as the former have. To compare only agricultural faculties of national universities and national agricultural research institutes, research expenditure per researcher in the former is rather less than in the latter, while investment in library materials in the former is almost 2.5 times larger than in the latter.

The Agricultural, Forestry and Fisheries Research Council was established in 1957 to improve the situation by reorganizing national and local governmental research systems and by coordinating research institutions and governmental administrative agencies.

Table 4. Number of Agricultural Colleges and Faculties of Universities and Governmental Agricultural Research Institutions, Total of Researchers, Amount of Total Expenditure for Research, Investment in Library Materials by Organization.

Organization		Number	Number of Researchers	Total Expenditure for Research	Disbursement per Researcher	Investment in Library Materials	Investment in Library Materials per Researcher
				(in thousand yen)	(in thousand yen)	(in thousand yen)	(in thousand yen)
Grand Total		386	13,297	23,732,304	1,784	195,842	14
Colleges and Faculties of Universities	Total	50	4,792	7,313,818	1,526	140,344	29
	National	36	3,439	6,104,803	1,775	114,355	33
	Prefectural	5	461	758,882	1,646	14,239	30
	Private	9	892	450,213	504	11,750	13
Governmental Research Institutions	Total	336	8,505	16,418,486	1,930	55,498	6
	National	29	2,869	5,333,328	1,859	39,172	13
	Local	307	5,696	11,085,158	1,956	16,326	2

To prevent over-concentration of population in the metropolis, it was decided by the Cabinet in September of 1961 to move some Governmental agencies from the crowded central area of Tokyo to suburban areas. In accordance with this decision, the following research institutions under the jurisdiction of the Ministry of Agriculture and Forestry have informally been selected to join in an agricultural research center somewhere at the foot of Mt. Tsukuda: National Institute of Agricultural Sciences, Central Agricultural Experiment Station, National Institute of Animal Industry, Horticultural Research Station, Agricultural Civil Engineering Research Station, National Research Institute of Agriculture, Sericultural Experiment Station, National Institute of Animal Health, Food Research Institute, Forest Experiment Station, and Freshwater Fisheries Research Laboratories.

If this plan materializes, it will mean a revolutionary change in the development of agricultural research under the Government and will demand sound scientific information services from a coordinated center.

Considering such a possibility, the Secretariat of the Agricultural, Forestry and Fisheries Research Council has been surveying libraries and library services in research institutions and exploring ways and means to develop a center for agricultural and forestry information. Its Survey Section found that in January of 1962 the 28 research institutions under the Ministry of Agriculture and Forestry and their branches had more than 733,000 books and other bound volumes and 52 full-time and 155 part-time workers and that many of their libraries were suffering from shortages of space, staff and budget and such problems as centralization of library management, technical processing, reproduction services and in-service training.³⁰⁾

To clarify the needs and views of users or researchers, another survey was carried out in the following year.³¹⁾ It revealed strong demands for secondary sources of information, especially domestic ones, better photo-reproduction services and translation services for literature in Russian (by 50%), in German (by

20%) and in French (by 14%). Another interesting finding was about the sources of information materials which researchers could not find in their own institutions. Those in the main research stations obtained 32% of such materials from other research institutions of the same Ministry and 51% from universities, while researchers at branch stations got 65% from other research institutions of the Ministry but only 25% from universities. As one researcher stated, there were many unnecessary duplicates of periodicals and other materials in various research stations, and as it was practically impossible to acquire ideally comprehensive collections of all needed materials in every institution, it was most desirable to establish a central coordinating center to provide quick and efficient library and information services economically.

When the Japan Library School of Keio University, with a Rockefeller Foundation grant, provided opportunities of training for life sciences librarians in 1962, the Secretariat of the Agricultural, Forestry and Fisheries Research Council encouraged librarians in agricultural research institutes to take the courses or attend the workshops taught or led by Dr. Estelle Brodman, Professor of Medical History and Director of Library, School of Medicine, Washington University at St. Louis, Mr. Thomas P. Fleming, Professor of School of Library Service and Medical-Natural Sciences Librarian of Columbia University, and Mr. J. R. Blanchard, Director of University Library, University of California at Davis, in 1962, 1963 and 1964 respectively. Among the students and workshop participants, 16 were librarians or information specialists belonging to research institutions of the Ministry of Agriculture and Forestry.

When the Secretariat decided to publish the *Union List of Serials in Foreign Languages* collected in the research institutions of the Ministry,³²⁾ those who had studied at the Japan Library School were the core members of the compilation committee. There is no doubt that the union list will help interlibrary loan services among affiliated research libraries. It

is expected that their second project, a union list of Japanese serials in the same institutions, will be accomplished in 1966.

To further the training of agricultural librarians, the Secretariat has decided to carry out a three-year program from this year. In August, 1965, a one-month institute will be held for 15 agricultural library leaders of the Ministry with instructors invited from faculty members of the Japan Library School and librarians of outstanding agricultural libraries.

Meantime, during the spring-summer period of 1965, librarians of the Ministry's research institutions in the Metropolitan area have held many meetings to examine and discuss their problems, including the plans for a library for the research institution community for agriculture, forestry and fisheries to be developed in the future. Although no conclusion has yet been reached, it would be an epoch-making step in agricultural librarianship in Japan to establish an agricultural sciences library and information center. Probably the horizon of Japanese agricultural libraries is to be extended by agricultural research librarians instead of by agricultural librarians in academic institutions where at present, except in a few instances, extreme decentralization of their library systems and the low qualifications required for librarians have paralyzed services.

Together with this anticipated change in the Governmental agricultural research library system, the improvement in library services at the Agricultural Faculty Library of Tokyo University will be watched with keen interest. These two developments hold the most promise for agricultural librarianship in Japan.

VII. Postscript

The writer believes there is cause for jubilation in the current trends in some agricultural libraries where librarians are striving to give better services and in some Governmental agencies concerned with dissemination of agricultural scientific information for the improvement of agricultural techniques where the writer's colleagues are discussing plans for

what may become a great national agricultural library. It is because of this that he considers it fitting that this paper be dedicated to Professor Takashi Hashimoto, Director of the Japan Library School, on the occasion of his "koki," commemorating his seventieth birthday. Well known is the deep interest he has taken in the slow but gradual development of agricultural librarianship of Japan.

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