

Agricultural Education in Japan

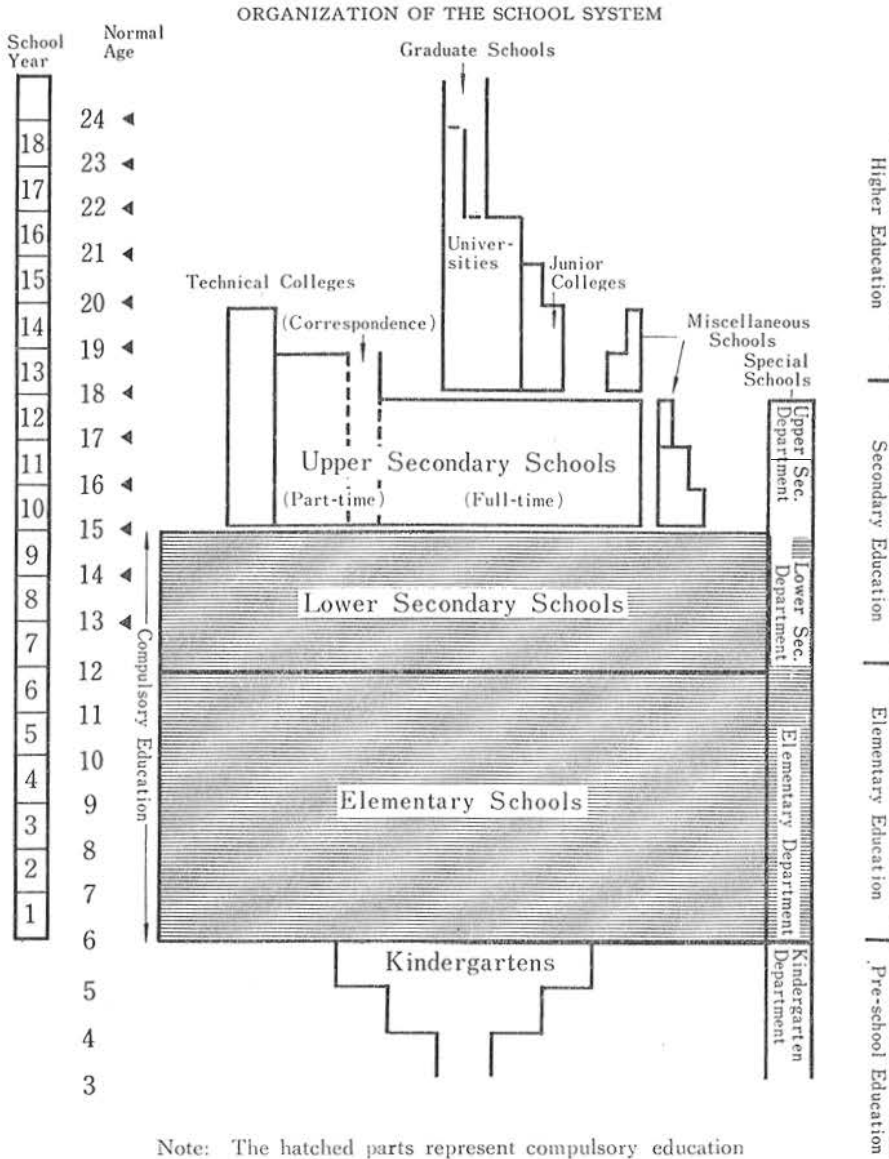
By HEIHACHRO MIYAYAMA

Science Supervisor, Higher Education and Science Bureau, Ministry of Education

School system in Japan

School education which forms the substratum of education is conducted in the school

of the different levels from kindergarten to university. A single-track 6-3-3-4 school system is established in Japan by the School Education Law. Nine years of elementary



and lower secondary school education is compulsory for the children of the 6 to 14 years of age.

Agricultural education in secondary schools

(1) Lower Secondary Schools.

In lower secondary schools, agricultural subjects are provided as optional ones for pupils who are to be engaged in agricultural vocation after leaving their school.

The content of the agricultural subjects are agriculture, horticulture, livestock breeding, forestry, agricultural manufacturing, etc., from which pupils can choose what they think necessary.

(2) Upper Secondary Schools.

In upper secondary schools, agricultural course is provided for pupils who are to be engaged in agricultural vocation after leaving their school.

The number of schools that have agricultural courses is 886, among which 494 schools are full-time ones and the rest are part-time ones.

The agricultural course divides itself into such sub-courses as in the field of agriculture, horticulture, livestock breeding, agricultural manufacturing, agricultural civil engineering, forestry, etc.. The pupils in agricultural courses occupy 5 per cent of all students of upper secondary schools.

Nearly half of the total teaching hours is assigned for general culture such as Japanese language, social studies, mathematics and so forth, and the other half is for agricultural education.

Junior college

1) The junior college aims at providing college education with the emphasis on practical professional learning of two or three years on the basis of the education given at the upper secondary school. The prerequisite for admission to the junior college is graduation from the upper secondary school.

2) There are 12 agricultural junior colleges of which four are established and financed by the public entities and eight by school juridical

persons (private colleges); the total enrollment being 1,250. No junior agricultural college is sponsored by the national government. Total number of entrance into agricultural colleges in 1969 is shown by departments in Table 1.

Table 1. Junior colleges : Number of agricultural departments and number of incoming students (as of 1969).

| Department | Public | | Private | | Total | |
|--------------------------|--------|---------|---------|---------|-------|---------|
| | Dept. | Student | Dept. | Student | Dept. | Student |
| Agronomy | 4 | 190 | 2 | 120 | 6 | 310 |
| Horticulture | - | - | 2 | 140 | 2 | 140 |
| Animal husbandry | 2 | 100 | 2 | 100 | 4 | 200 |
| Agricultural machinery | 1 | 30 | 1 | 80 | 2 | 110 |
| Agricultural engineering | 2 | 60 | 1 | 80 | 3 | 140 |
| Agricultural economics | 1 | 30 | 3 | 280 | 4 | 310 |
| Brewing | - | - | 1 | 40 | 1 | 40 |
| Total | 10 | 410 | 12 | 840 | 22 | 1,250 |

University and college

1) The university and college, as a center of learning, shall aim at teaching and studying deeply professional learning and technical arts as well as giving broad knowledges and developing the intellectual, moral and practical abilities.

Those who can be admitted to the university should be graduates from the upper secondary school.

In order to graduate from a university or college, the students must be enrolled at the university or college for over four years period and learn more than 124 units of subjects of study.

Subjects in general education: more than 36 units.

Subjects in foreign language: more than 8 units.

Subjects in health and physical education: 4 units.

Subjects in professional education: more than 76 units.

The above-mentioned number of units, that

Table 2. Number of agricultural departments and incoming students per year (1969)

| Departments | National | | Public | | Private | | Total | |
|-----------------------------|------------|--------------|-----------|------------|-----------|--------------|------------|---------------|
| | Dept. | Students | Dept. | Students | Dept. | Students | Dept. | Students |
| Agriculture | 48 | 1,473 | 2 | 95 | 9 | 660 | 59 | 2,228 |
| Agricultural chemistry | 39 | 1,382 | 2 | 70 | 10 | 620 | 51 | 2,072 |
| Agricultural engineering | 27 | 970 | 1 | 25 | 2 | 200 | 30 | 1,195 |
| Agricultural economics | 8 | 265 | - | - | 6 | 640 | 14 | 905 |
| Veterinary & Animal Science | 26 | 795 | 1 | 40 | 10 | 820 | 37 | 1,655 |
| Forestry | 29 | 880 | 1 | 40 | 2 | 200 | 32 | 1,120 |
| Fishery | 19 | 790 | 3 | 60 | 4 | 320 | 26 | 1,170 |
| Total | 196 | 6,555 | 10 | 330 | 43 | 3,460 | 249 | 10,345 |

is decided expecting that a student is able to learn that number of units in the four years period by studying for 45 school hours in 15 weeks.

2) There are 51 agricultural faculties (including Veterinary Science and Fishery) of universities and colleges, of which 37 are national universities and colleges, 3 public, 11 private, and 10,345 of the total students are enrolled in agricultural faculties.

Table 2 shows the number of agricultural and that of enrollment of students in 1969 fiscal year in national, public and private universities respectively.

Graduate school

Universities and colleges may maintain the graduate schools whose aim is to "provide instruction, conduct research for the purpose of making an intensive study of theories and application of sciences and thus make contribution to the development of culture."

The graduate school consists of two-year Master Course and three-year Doctor Course consecutively, the graduates of which are conferred upon with the Master (Shushi) degree and Doctor (Hakushi) degree respectively.

(1) Two-Year Master Course

To be granted the Master degree, the students must be enrolled at the daytime for more than two years and take up more than 30 units of subjects in their special fields, submit a master thesis and sit for and pass the final tests.

The number of Master Course (Agriculture,

Forestry, Fishery) in national universities and colleges amounts to 28, and enrollment of students totals 1,673 (Number of incoming students as of 1969). By adding Master Courses of public and private universities figures will be 7 and 179 respectively. Although the reputation for these master of agricultural sciences is anticipated to be established in future, they are readily accepted as teachers and technicians at present.

(2) Three-Year Doctor Course

To be granted the Doctor degree, the students must be enrolled at the graduate school for at least five years, learn more than 50 units of subjects in the field of their specialized subjects, write an original doctoral thesis on their specialized field of study and sit for and pass the final tests.

There are 14 doctor courses, and 340 seats for students in total of national, public and private universities. Doctors are employed as university teaching staff, and as researchers and high-grade technical staff in general.

Foreign students in agricultural education and research

Many foreign students are studying at Japanese universities and colleges, with Government funds (Japanese Government Scholarship Program), private funds and others.

In these students, agricultural education and research are as follows; undergraduate students is 3.5 per cent of total, research students is 14 per cent of total in 1967.

Table 3. Number of foreign students in universities (1967)

| Division | Under-graduate | Research | Total |
|--|------------------|------------------|------------------|
| | Total Agr. | Total Agr. | Total Agr. |
| Japanese government scholarship grantees | 320 23 | 190 47 | 510 70 |
| Private fund | 1,462 67 | 919 132 | 2,381 199 |
| Others | 4,299 120 | 271 15 | 4,570 135 |
| Total | 6,081 210 | 1,380 194 | 7,461 404 |

Table 4. Number of foreign students in agricultural education and research by country of origin (1967)

| Undergraduate | | Research | |
|---------------|------------|-----------|------------|
| 1. Korea | 119 | China | 111 |
| 2. China | 41 | Korea | 31 |
| 3. Viet Nam | 17 | Indonesia | 16 |
| 4. Indonesia | 10 | Malaysia | 7 |
| 5. Malaysia | 9 | Pakistan | 7 |
| 6. Thailand | 4 | Ceylon | 5 |
| 7. Singapore | 2 | India | 4 |
| 8. Syria | 2 | U. A. R. | 4 |
| 9. Burma | 1 | Thailand | 3 |
| 10. Cambodia | 1 | Burma | 2 |
| 11. Ceylon | 1 | Australia | 1 |
| 12. Mexico | 1 | Brazil | 1 |
| 13. Peru | 1 | Nepal | 1 |
| 14. Portugal | 1 | Peru | 1 |
| Total | 210 | | 194 |