AGRICULTURE IN JAPAN

BY F. YEBINA, '95.

The real name of my country is Nippon, The Land of Sunrises. This name was given by the Chinese and the name Japan is not known to my countrymen. The name Japan was given by Spaniard traders on account of the sunrises which they received from that quarter.

The farmers in Japan belong to the so-called lowest of the three classes of people, nobility, soldiers, and commoners. At the present day the commoners are divided from all classes of the people, but in former times when soldiers were considered of a higher class, the brightness of the commoners took advantage of every opportunity to leave their trades for the higher position of soldier.

This left agriculture in the hands of the most ignorant, and we find the same crude systems were used in cultivating the soil for centuries and centuries. The same old-fashioned hand tools were used generation after generation, with no improvement. The people did not travel in trains or visit other places, and as a result there was no opportunity for exchange of ideas or improvement in methods of work.

Then again, the rice fields, where each family has a patch of four or five acres planted to orchard or used as a vegetable garden. Beside this little plot upon which the house stands each farmer owns a part of the extensive fields which surround the village, and which are planted mostly to rice. The rice fields extend from one to five miles from the village.

Each village has its pasture, meadow land, and mountain, all of which are under the control of the village council. The village pasture accommodates all of the stock of the village and an exchange of stock among the people of different villages so arranged that all the animals of a given village are of the same sex, while the adjoined villages have an advantage of every opportunity to trade their horses for the higher position of soldier.

There was Will Curtis, city editor of the Kewanee, Ill., Will substantial and prosperous, and W. S. Palmers, the former assistant superintendant of Graceland Cemetery. There was no opportunity for exchange of ideas or improvement in methods of work.

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The M. A. C. Record.

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In this issue of the Record we begin the publication of an article from the pen of our Japanese student, Mr. Frank Tebina, on Agriculture in Japan. It will be interesting to compare this article with the one on Pestilential Life, from Vadim Subenioff, and then to compare the two with conditions existing in our own country.

We wish to call the attention of our readers to a lecture delivered before the Massachusetts Horticultural Society on Feb. 8, 1896, by Gilbert H. Hicks of the class of '92, formerly Instructor of Botany. Mr. Hicks spoke on "Seed Control; its Aims, Methods, and Benefits." We wish to record this lecture because it is an important lecture which appeared in the Boston Transcript. This lecture was very well received.

It gives the numerous friends of Mr. Hicks here, and elsewhere, pleasure to learn of his success.

It was with pleasure that we received the following communication accompanied by the accompanying account of the C. M. A. C. A. dinner, which will be found on the first page of this issue.

Publisher M. A. C. Record, Apt. College, Mich.:

By resolution of the Chicago M. A. C. Association I am directed to forward to you an account of the first annual dinner of the organization.

Ray S. Baker, Secretary.

Chicago, March 13, 1896.

It is just such news that we want. It is such news that our alumni like to read. We wish that in the near future we might hear of a half dozen or more M. A. C. alumni similar organizations might be effected and that we might hear from all of them. To hear of the "old boys" gathered around the banquet table talking of old times on our ground, who are a very valuable fertilizer as they contain over 5 per cent potash, 1.7 per cent of phosphoric acid and 34 per cent of lime. On soils where potash is called for they should be indulged in but very moderately by the farmer. It matures its seed like the clovers, at about the same time of year as red clover, but its reputation is by no means well established.

An enquirer wishes to know if wood ashes mixed with wheat in the fall are of value; also information regarding the use of ammonia for this purpose.

As has already been stated in the Record, wood ashes are a very valuable fertilizer as they contain over 5 per cent potash, 1.7 per cent of phosphoric acid, 14 per cent of lime. On soils where potash is called for they should be indulged in but very moderately by the farmer. It matures its seed like the clovers, at about the same time of year as red clover, but its reputation is by no means well established.

Requirements for Admission to Inter-collegiate Athletic Contests.

In the Sperapin of April 15, 1895 appeared the new regulations governing the admission of M. A. C. students to inter-collegiate contests after September 1, 1896. In view of the many additions that have since been made to our student body, we think it advisable to again call attention to these requirements.

We feel that the effort to raise the standard of athletics, scholarship, and professionalism, an effort which is in thorough sympathy with the vigorous measures being taken by many eastern universities and by our own students, should receive hearty support from every lover of amateur athletics.

The resolutions adopted by the Faculty and approved by the Board of Agriculture are as follows:

Resolved, That the students be allowed to participate in the various contests on the annual field day and in games of foot ball and base ball on the grounds of this or some other college, under the following conditions:

1. To be allowed to take part in any inter-collegiate contest occurring in any term, before the first monthly report, the student must have been in regular attendance upon the College for at least the term next preceding, and shall have taken in that term the equivalent of three studies.

2. To be eligible to any inter-collegiate contest a student must have an average standing of eight or over on a scale of ten, and shall not be conditioned in more than two studies.

3. The eligibility of a student to inter-collegiate contests after the first monthly report for the term in which he enters, shall be determined by special action of the Faculty.

4. No student shall represent the college in any regular annual inter-collegiate field day who has not received from the Secretary of the Faculty a statement in writing certifying to his eligibility under these rules.

5. These regulations shall go into effect at the beginning of the next college year.

Resolved, That article six of the constitution of the Students' Organization be amended so that it shall not be competent for the organization to levy any tax for athletic purposes, or that taxes levied for athletic purposes shall be voluntary obligations.

Resolved, That the Faculty opposes professionalism in athletics, and desires the student body to abstain from anything savouring of the same.

At the College.

Mr. and Mrs. Rosenam visited at Mr. Westcott's last Wednesday.

The thermometer went below zero at the College last Wednesday night.

We are sorry to learn that Prof. Chamberlin's mother is very ill.

Mrs. Jessie Deal Baker returned to M. A. C. last Friday for a week's visit.

A new pound girl baby was born to Mr. and Mrs. R. A. Edgington.

The Vacation Guitar Club played at the Peconic Society meeting last Friday afternoon.

A. C. Crosser, assistant in agriculture, spent a couple of days last week at his home in Ann Arbor.

The M. A. C. Grange will meet in the Columbia Society room on the night of March 20.

Last Thursday Mrs. Chamberlin received the in­telligences of the death of her sister in Buffalo, N. Y.

Superintendent of Institute, K. L. Butterfield, re­turned Saturday from a three week's institute trip through Ohio, Indiana, and Wisconsin.

At the invitation of the board of trustees Prof. Weil last week examined the heating, lighting and water plants of the Kalamazoo asylum for insane.

One of the city pastors thought an Agricultural lecture could be given at our college, and whom our faculty ladies called at his home in one day last week.

G. D. Davis, instructor in zoology, went to Grand Rapids last Friday to investigate certain pests that are doing great damage to the mushroom industry in that vicinity.

The Mechanical Department now has complete sets of blue prints of exercises used in the various shops—cable mounted for shop use and another bound for reference.

Quite a number of special students are taking lectures in bacteriology under Dr. Granga. Six of the seniors, Messrs. Burk, Britto, Clute, Pimms, Nicolais, and West, have chosen subjects along this line for their work.

F. H. Hae, the expert electrician employed by the city of Lansing to investigate the troubles of the electric lighting company, spent a week at Woodworth and his electric engineering students to make the line tests and measurements to determine insulation, resistance, etc., which is much needed.

Prof. A. R. Noble, assistant professor of English, was recently elected to membership in the Phi Beta Kappa Society by the Alpha Chapter at the State University of Iowa. The object of the Phi Beta Kappa is the promotion of scholarship and friendship among the students and graduates of American colleges, and its membership is made up exclusively of those high in scholarship and morality who have studied Latin and Greek, or Latin.

Through the courtesy of Mr. Frank Tebina we have received from Prof. Tonakia of the University of ROM, Tokio, Japan, seven seeds of the Crop of Japanese Wheat. It will be remembered that Prof. Tonakia visited M. A. C. in '94.

News from Graduates and Students.

Students in Mechanical Course designated by "m." and specialists by "sp."

B. R. Post, '92, will commence the study of medicine at the University of Chicago.

A. T. Miller, with '96, is a prosperous merchant of Swarts Creek, Mich.

W. H. Coffron, '28, Washington, D. C., is among those who are trying to solve the problem of X rays.

Geo. H. Han, with '94, 171 LaSalle St., is the leading electrician of the Wolverine Electric Company.

Frank Johnson, '25, '26, is now with a Michigan Central R. R. bridge erecting crew at Cornell, Ontario.

We are sorry to learn that Wm. S. Howland, who expected to return to M. A. C. this spring, is not yet able to leave the hospital.

A. A. Crozier, '10, is engaged in agriculture near Flushing, Mich. He is considered one of the most successful farmers of his locality.

J. A. Wallander, '26, is taking special work at the Michigan Agricultural College. He expects to return to M. A. C. in the future.

Speaking of the Record personalities: "There are no boys like the old boys."—W. W. Daniels, '91, professor of chemistry, University of Wisconsin.

H. F. Palmer (28) and Mrs. Palmer are residing from the old home town to their new farm in Brooklyn.—Napoleon correspondence to Grass Lakes News.

J. E. Co-mell, '30, M. S. Dept. Agr. Engr. Univ., Knoxville, writes of the successful results which he has obtained with X ray photography.

R. C. Fisher, '26 returns to Tampa this spring for 10 weeks work. He will graduate in June with the degree of B. Pd. His love for his alma mater is none the less.

Hon. C. W. Garfield, 70, is president of the Michigan Cyclist Publication Co., Grand Rapids, Mich., and each week edits a sports department entitled "The Road and Roadside."

John Hiskett, '22, U. of M., '26 is now practicing medicine at Wacousta, Michigan. He has a twenty mile drive through surrounding territory, and enjoys the open air exercise.

Prof. P. A. Latix, secretary of the Ottawa County Horticultural Association,缸 Michigan, Michigan, was invited to attend the mass meeting held there in behalf of tree culture.—Cooperer Observer.

Guy Stewart ('30) in lending his experience and business ability to the "Favorite Store" this week in the absence of its enterprising proprietor, A. M. Badin, who is in Detroit buying new goods.—Otago County Herald.

Wm. Matrilles, who is connected with the acid department of the Michigan Carbon Works of Detroit, and who spent last summer at M. A. C. as a special student in chemistry will return during the present year for further study.

W. H. Osmers, '96, will leave Michigan this year in the capacity of traveling salesman for the Perkinst Wind mill Company of Mabaska, Ind. His family will follow him to the West in a vacation of two weeks which they permanently locate.

W. M. Musoon, '88 professor of horticulture in the Maine Agricultural College, writes from Ithaca that he was President and Mrs. Snyder in Switzerland last summer, having traveled with them from Inter lachen to Lausanne.

Owing to liberal appropriations at the Nevada State University, the department of Botany and Entomology in charge of Prof. F. H. Hillman, '85, has been greatly enlarged. His department now occupies an entire floor of a large building and is making good progress.

J. A. Patrin, '98, is now superintendent of the St. Johns, Mich. electric plant. His experience since graduating has been somewhat varied. Two years with the Brush Electric Company at Cleveland; two years in charge of the mechanical department for colored students at Knoxville, Tennessee; then a farmer at Con-
meanst Lake, Pa., for a short time, and last fall he again entered the employ of the Brush Company. He began his work as a ‘boy’ and, such a young man as he is, is in a short time with his wife, who is a graduate of President Snyder’s alma mater.

Prof. A. T. Stevens, ’83, Greenbush, N. C. is having quite an experience now in the field, from dust and museum pests, but makes it an exquisite experience. Any additional light they may glean from these mysterious quarters of a mouse, in which the bones showed very interesting relations, was in direct proportion to the density of the atmosphere which was discovered much later. He then advanced the ‘new ideas’ than all of his predecessors placed together since the organization of the county.

NATURAL HISTORY SOCIETY.

Boesgen Rays.

At the meeting of the Natural History Society last Friday evening, the whole time was given to W. J. McCall, ’86, for an explanation of the Theory of the Boesgen or X rays. Mr. McCall began by giving an idea of the various conditions of matter, solid, liquid, and gaseous, and also of the so-called fourth or radiant condition. For an experiment with their rays, he has performed several experiments with Crooke’s tubes and called attention to the tendency of the molecules of radiant matter to produce phosphorescence upon striking an impure surface. It was supposed that only the cathode rays had this property, and that cathode rays could be brought to a focus by the use of a magnet. The President, while preparing to perform an experiment to show phosphorescence noticed that phosphorescence was produced by an X-ray tube and known to be opalescent to cathode rays. He immediately recognized the importance of his discovery and began experimenting with the unknown rays. He found that, unlike the cathode rays, it could not be focused, reflected, or deflected, that it would pass quite readily through wood, lead, and other substances opaque to cathode rays, and that the facility with which it penetrated these substances was in direct proportion to the density of the substance. Another important discovery was that X rays produce an impression on photographic plates similar to that produced by light. Thus a new and very important field in photography was opened up. The X rays are of two kinds, one being an X-ray of high energy, or a ‘quartz of a mouse’ in which the bones showed very interesting relations.

The Zoological Department has obtained recently a supply of really patent butterfly table cards and will soon publish the catalogue. It exhibits an array of exotic butterflies and moths selected mainly from the rich collections donated by Senator McMillen a few years ago. The cases are arranged in alphabetical order by white plaster, made in a variety of sizes and proportions, each block followed at the proper place to admit the block from the case. Each block is also tipped with a label made to order, and the blocks are tended as with ordinary pinned specimens, but without the pins. Each block is faced with clear glass and ‘clipped’ with colored paper so that the contained insect comes close against the glass and is enmeshed in a hermetically sealed frame which not only protects it from dust and museum pests, but makes it an exquisite picture or modulation, the beautiful forms and tints of the insects showing to the best advantage against the snowy background of the snow-covered frame.

This method of mounting has many obvious advantages, together with some drawbacks. The fact that each specimen is mounted is an absolute protection against the gathering of the moisture against the sides of the collection by museum pests, which so often happens when hundreds of insects are pinned in a single case. It also allows the mounting of small specimens of the various special conditions which are not for some reason, not for others, but with any danger of injury. Each insect lies so close to the cover glass that the body is not flattened by the mounting process and the venation can be satisfactorily studied with the hand, lens, or even under the compound microscope. Above all, the beauty of the insect is shown to the best advantage and the mounting represents the ‘best and most desirable style of mounting.’ So the new method is sure to come into general use, at least for display collections and popular instruction; it is not designed to replace the systematic collections of professional entomologists.

Perhaps the most serious objection lies in the fact that only one side of each insect is visible, but this is true of all other collections, and can be obviated readily by mounting two specimens of each species, one showing the upper surface and the other the reverse. Most other objections are more apparent than real, and are more than compensated for by the beauty of the preparations. The table cards are inexpensive and several hundred will fill the entire museum at once.

Zoological Department.

M. A. C. RECORD.

In a recent interview J. H. Brown, associate editor of the Michigan Farmers expressed himself as follows:

"I have been engaged with the Chicago Agricultural College, since March 10, and find it very interesting and full of practical information. Dr. Kedzie’s article on ‘Chemist or Farmer’ is very interesting. The county agricultural college, which began to think that food substitution will eventually be needed, is in the right spirit. The general agricultural idea of the distribution of ‘Farm Crops for 1896,’ interested me very much.

"I would suggest that every farmer who reads the Rochester agricultural college, will benefit by the side column to the right of each entry. It will be handy to refer to in reading future issues of this paper, wherein experiments are referred to as being in progress. The price of seed, in the year 1896, will give the other one per cent the benefit of the doubt."

"I have been engaged with the Rochester agricultural college, since March 10, and find it very interesting and full of practical information. Dr. Kedzie’s article on ‘Chemist or Farmer’ is very interesting. The county agricultural college, which began to think that food substitution will eventually be needed, is in the right spirit. The general agricultural idea of the distribution of ‘Farm Crops for 1896,’ interested me very much."

BUTTERFLY TABLETS.

PROP. WALTER B. BARROWS.

BUTTERFLY TABLETS.

Before the Horticultural Society, Saturday, Feb. 8, 1896, Dr. W. J. McCall, of the Department of Agriculture, Washington, delivered a lecture on ‘Seed Control; its Aim, Methods and Benefits.’ The lecturer first spoke of the quality of the variety and purity of the seed tested, with the advantage of taking the full course several times, with so many facilities for study and experimental work. The young farmer who can manipulate at this school, and realizes the full value of the work, will make better improvements than ever before. The lecturer recommended that the new seed and ungerminable seed, and places the agriculturist in a position of greater boldness. The sample must be taken and sealed before a witness, and must be a fair average of the seed purchased, so that the farmer can be sure of obtaining good seed. Of the smaller seeds, as redish, rape, clover, grasses, etc., at half as much as must be sent in, and in the case of larger seeds, such as peas, beans, corn, etc., must be sent in from a quarter to half a pound. The results of the test are published in the official journal of the station, which also publishes equitable standards of purity and germinating capacity, based upon the tests made by the station for them—the ‘preliminary test,’ as it is called. The firm binds itself in case its seed fails per cent or more below the germination per cent guaranteed, either to refund the money per cent or to replace the seed at expense alone.

In supplementary tests made for farmers of the East Prussian Agricultural Society, if more than two per cent of foreign matter occurs above the guarantee, the dealer shall be credited with every ten to ten dodder seed per pound.

Certain conditions exist relating to the amount of seed coated, to the amount of germination, and the manner of drawing and sending samples, limit the time of the year when seeds can be bought under a guarantee, time for filing claims, etc. The methods of preparation of samples for seed testing is described in a bulletin purchased by the buyer.

Not only the results of the tests but also the names of the seed and their percentage purity are published in a bulletin purchased by the buyer. The bulletin also contains a most wholesome check upon the sale of impure and ungerminable seed, and places the agriculturist in a position of greater boldness. The sample must be taken and sealed before a witness, and must be a fair average of the seed purchased, so that the farmer can be sure of obtaining good seed. Of the smaller seeds, as redish, rape, clover, grasses, etc., at half as much as must be sent in, and in the case of larger seeds, such as peas, beans, corn, etc., must be sent in from a quarter to half a pound. The results of the test are published in the official journal of the station, which also publishes equitable standards of purity and germinating capacity, based upon the tests made by the station for them—the ‘preliminary test,’ as it is called. The firm binds itself in case its seed fails per cent or more below the germination per cent guaranteed, either to refund the money per cent or to replace the seed at expense alone.

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The following books have recently been purchased for the library:

- Arnold (Charles), Letters, 2 vols.
- Aikin, Milk.
- Aiken, Methods of Mind Training.
- Houghton, Popular History of the State.
- Campbell, Structure of mosses.
- Cottam, Wonders of modern mechanism.
- Chase, That don't come in a dime.
- Cope, Organic evolution.
- Chamberlain, Child and childhood in folk thought.
- Chicago Daily News Almanac, 1886.
- Coles, The English Finance.
- Dictionary of National Biography, Vols. 43-44.
- Blumenberg, Language and country-side.
- Field, Hobos from the Sabine farm.
- Ferri, Criminal sociology.
- Gibson, Rural education.
- Gledston, Rolling ideas.
- Greenwell, Rural water supply.
- Griswold, Ship kips.
- Grasses of Tennessee.
- Hall, Who Pays Your Taxes.
- Harrar, John Cadot.
- Hadden, Evolution in art.
- Hoffman, The Sphere of the State.
- Houston and Kendall, Electric heating.
- Houston, Annual, 1893.
- King, New Orleans.
- Koehler and Heider, Embryology.
- Loderne, The Spraying of Plants.
- Lowell, Marx.
- Long, Copper and Composition.
- Mayo and Smith, Statistical and sociology.
- Marxen, Cotton weaving.
- McGrew, Stock raising.
- Maclaren, Beside the Bombay Brier Bush.
- Morgan, Animal life.
- Monson, Literary study of the Bible.
- Panzen, Illustration of books.
- Histoire, Molécules.
- Schott, Electirc wiring.
- Schott, Histoire, 2 vols.
- Salem, Recollections, 2 vols.
- Sayler, History of the earth.
- Baley, History of the earth.
- Sallushi, Collins, 18th century, Literature.
- Smyth, Bayard Taylor (American men of letters).
- Wright, Greenland's ice fields.

The questions have been placed in the hands of the County School Commissioners.

If you wish to enter the College, go to the Spring Teachers' Examination at the County Seat of your County Thursday and Friday, March 26 and 27, and ask for M. A. C. Entrance Examination Questions.

Third Grade Teachers' Certificate also admits without further examination.


The work their three weeks ago. Have you begun?

To think of attending the M. A. C. this spring? Don't lose time. Classes are moving.

Next Term Begins May 25