

# PRESENT and FUTURE AGRICULTURE OF MICHIGAN

By R. A. SHAW, DEAN OF AGRICULTURE, M.A.C.

## GETTING A START

By NATHANIEL C. FOWLER, Jr.

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### THE DIARY OF A FOOL.

Monday: Got up late. Billed breakfast. Rushed for the train. Arrived at office behind time. Boss was there waiting for me. He made a remark about tardiness. Went to dance. Got home at one. Tired.

Tuesday: Got up late as usual. No breakfast, but got to office on time. Felt sleepy and Boss noticed it. Put two letters into wrong envelopes and mailed them. Guess there's going to be trouble. Went out with the boys. Had four drinks and smoked six cigars.

Wednesday: Ten minutes late at office. Boss didn't appear to notice it, but maybe he did. Felt sleepy and made some mistakes. Guess I must cut out this night business. Got home on time, ate supper, went to bed at nine and read until eleven-thirty.

Thursday: Had five minutes for breakfast, but got my regular train. It was late, so didn't get to the office until nine-thirty. Didn't feel like work, but managed to pull through. Six of us went to the movies and had a good time until midnight. Lost three dollars.

Friday: On time at office. Went to lunch at twelve and didn't get back till two. Met a friend and enjoyed a table d'hôte with him. Had something to drink. Lucky for me the Boss was out when I came in. Called on Mildred and didn't get home till midnight.

Saturday: Overcast. No breakfast. Twenty minutes late at office. Boss was there, of course, fuming and fusing because there was something for me to do right away. Blew my head off. I'll be never was young himself. Life is hard. Lucky for me this was a half-holiday. Had a chance to sleep it off. Don't like the Boss. He isn't fair. Just raised the pay of the fellow sitting next to me. I asked him if he would raise mine, too. Did I get it? No! Came pretty near getting kicked out. There's no chance for a young man nowadays. Think I'll look for another job where there's opportunity.

Sunday: Spent morning in bed. Too tired to get up. Went out in the afternoon with some of the fellows in the woods. Drank three bottles of beer and smoked. All the fellows disgusted with their jobs. Agree with me that there isn't any chance for a young man. Nabby-pambles and good-goodies get all the snags. One of the fellows at the boss caught him drinking a cocktail and raised the deuce. Gave him a long lecture. What business was it of his, anyway, as long as John didn't drink in his office? His place is a fool. Say he has a right to say what his clerks shall do out of home. Kicks because they go out nights. I'd like to see my Boss try it on me. It wouldn't take much to make me go anywhere. Bill Jones has a good scheme up his sleeve. Guess I'll go with him. Bill says there's no chance for a fellow in this city. Talked it over with Mildred tonight. She doesn't enthuse. Says I'd better make good home before I get out. What does a woman know about business anyway?

### HARD QUESTIONS TO ANSWER

Requests Regarding Matter of Daily Life Are Hard to Comply With.

The land area of the Upper Peninsula includes 10,622,240 acres, a little less than one-third of the total area of Michigan. Of this land area in farms amounted to 912,784 acres, of which 340,602 acres were improved. The number of farms at that time was 8,994.

The following interesting data was obtained from a report of the Upper Peninsula Development Bureau, dated October 15, 1913, procured largely from supervisors and in some instances township clerks. Their report during the year the number of families locating on farms in fifteen Upper Peninsula counties was 1,700. Acres of land sold for farming purposes, 332,268 acres. The number of farms planted, 1,912. Acres of land sold for farming purposes, 337,248 acres. The following fruit trees were planted, viz: Apples, 88,859; cherries, 16,412; and plums, 8,103. At this time there were 761 schools, of which 45 were organized in 1914; the total school attendance was 52,018. This part of the state included 322 churches. During the year \$289,816 was spent on roads, including 1,894 miles of gravel and 1,200 miles of dirt. There included 656 miles and county roads 597 1/2 miles.

The opportunities for agricultural development in the counties of the Upper Peninsula of Michigan are very great indeed. In this regard according to the census report, no county except Menominee has more than 20 per cent of its land in farms. This portion of Michigan will some day be developed into a veritable agricultural empire. Contrary to a widespread opinion that this part of the state consists of an alternation of rocky wastes and swamps, there is to be found, throughout the entire agricultural land in the state, there is a land of great possibilities for the production of legumes, pasture and root crops, and is, therefore, destined to become a notable dairy district.

The academic school has two distinct provinces: first, to teach the three R's, in order that one may not be illiterate; secondly, to impart knowledge beyond necessity, which will enable its recipient better to meet present and future conditions.

Expert and unbiased educators do not question the value of the first, but are not united regarding its second purpose.

How far should one go academically, if he would enter life properly prepared to meet its requirements? Opinion is divided. Upon general principles, however, it may be said that one is not likely to become over-educated academically, notwithstanding the fact that the curricula of most schools and colleges contain as much of the chaff as the wheat of learning.

Until we know what to teach and what not to teach, it is obvious that more than a small proportion of the waste cannot be eliminated.

The higher forms of education undoubtedly discipline the mind and make one better able to grasp conditions and to "make good" in every direction.

Education is of no value unless it makes a man more efficient to himself and to others.

The mere memorizing of a study is worse than wasted time, yet this condition unfortunately prevails to some extent in nearly every institution. The pupil is often ranked by what he is able to repeat, rather than by what he actually knows.

However necessary academic education may be in a preparatory sense, neither the school nor the college can take the place of experience.

"The School of the World, or, rather, the School of Experience" is the post-graduate institution which plays no favorites and which has no fads or fancy courses.

Real education does not end with the academic course. It begins after that course is finished.

No amount of book learning, memorizing or academic training, even under the most favorable conditions, can be substituted for experience.

The man who stops learning when he leaves his school stops living. It would be better for him, and for the community, if he used the little sense he has as a weight with which to drown himself.

Education, then, has no value in itself. It is valuable only in so far as it enables one to use himself to better advantage.

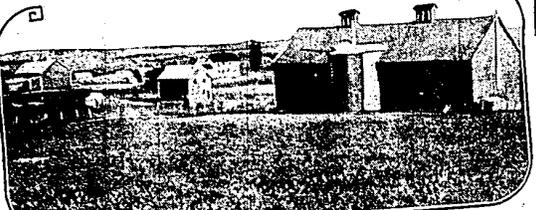
The parade of the cap and gown, on the college campus, is not the march of real soldiers on a real battlefield. Each cap and each gown should not stand for graduation, but rather be the insignia of a better preparation for entrance into the School of the World.

To know may be to know nothing. To know how to use what you know counts.

CAUSE OF ELECTRIC SPARK As to Why a Whip Cracks is Reasoned Out by an Intelligent Observer.

A theory as to why a whip cracks was discussed in the columns of the Scientific American. Jesse M. Jones of Canton, Pa., had a new and interesting theory expressed in a letter to the Scientific American.

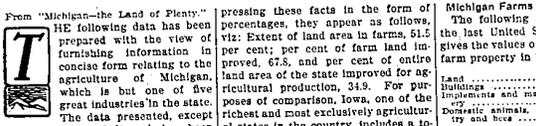
"I was in a half illuminated harness to be trying whips," she writes. "One particularly loud snap produced an electric spark at the end of the lash. All of a sudden the idea occurred to me that the spark was not made by the action of the lash dividing the air and that it was the instantaneous concussion of the air that produced the snap and the electric spark was the friction caused by a division of the current of air, the same as in a thunderstorm. Why not?"



PLOWING ON A BIG SCALE



A PROSPEROUS FARMING SECTION IN THE UPPER PENINSULA



HARVESTING SCENE

From "Michigan—the Land of Plenty." THE following data has been prepared with the view of furnishing information in concise form relating to the agriculture of Michigan, which is but one of five great industries in the state.

The data presented, except where otherwise indicated, has been procured from the report of the thirteenth census of the United States for the years 1909 and 1910. Comparatively few people have access to the census reports, which contain a mass of detailed data, that their common use for reference by individual citizens is not possible. The facts hereafter presented are for the purpose of stimulating a more general and complete appreciation of Michigan, particularly her agricultural industry and the wonderful opportunities open for its development.

Agriculture. The agriculture of Michigan is notable because of its enormous annual production and the unsurpassed variety of its products. This industry will be divided into two groups, viz., agriculture and horticulture, because of the prominence of the latter. The following ratings in agricultural production for the year 1909 have been computed from the thirteenth census report, viz:

The total number of animals on farms Michigan occupied the following rating, viz: Horses fourteenth, all cattle fifteenth, dairy cows tenth, swine thirteenth, sheep eighth, poultry thirteenth, and for colonies of bees twelfth. In making this comparison it should not be forgotten that the state is pitted against many of the chief business of the world in production, and that as later figures will show, in most instances, the rating is raised when expressed in terms of production and values rather than in numbers of animals.

The following list includes Michigan's cereals and other field crops, including the rating of the state among all others from the standpoint of crop valuations for 1909, viz: Corn, twentieth, wheat, twelfth, oat, ninth, barley, eighth, rye, first, buckwheat, third, dry grass, second, flax, second, soybean, sixth, flower and vegetable seed, sixth, hay and forage, eighth, tobacco, fourth, sugar in yield, vegetable, seventh, sugar beets, third, chicory, first, and mint, first. This long list includes a wide range of products of high utilitarian value, presenting in general high rating.

Agricultural Lands. In addition to the very favorable place Michigan occupies regarding her industries and agricultural products, there are still great opportunities for development, for as yet only 51.5 per cent of the total land area of Michigan is included in farms, with enormous areas of good land remaining to be reclaimed.

Michigan ranks twenty-first in land area among the 48 states of this country and eighth in population, with 2,810,175 inhabitants. This means that the state is only slightly above the average size for the entire number, and is only about one-thirty-sixth larger than Iowa, Illinois, Wisconsin or Florida, eight-thirteenth larger than Rhode Island, and less than one-fourth the size of Texas.

prising areas of two distinct types, viz., those on which hardwoods grew and those producing pines and other conifers. Stump lands upon which hardwoods once grew, if promptly rough-burned and seeded to a mixture of grasses and legumes, and then pastured for a few years until the stumps decay, may be rapidly and cheaply reclaimed for grazing and crop growing.

A larger portion of the lands in the state, comprising group (3) will undoubtedly be utilized than is at present anticipated. For this purpose, however, it being resorted to where the conditions are peculiarly suitable. These very light lands, instead of being farmed intensively in small areas, will some day undoubtedly be operated on large areas, and utilized for grazing purposes, when the proper methods of handling, seeding and improvement are solved, which they surely will be. The sand areas, under the same management, and with the proper promise of usefulness for horticultural and crop production, as well as for grazing purposes. Where the sand exists as such without a capping of soil, as heretofore referred to, the problem of agricultural production is still an unsolved one. It is a great misfortune for Michigan that some of her pure sand lands have been sold to scrupulous buyers for city sites.

Unscrupulous buyers have parted from their savings of years and left without experience or a soil with which to recoup their lost savings. Experienced farmers could not make a living on these lands, and could not be induced to buy them in this way. It is unfortunate that people, particularly those without experience, will persist in buying lands without even seeing them or making inquiry of responsible people.

It may be said of group (4) that the possibilities of increasing agricultural production in Michigan by drainage are practically equal to the possibilities of increased crop production in the average arid state of the West. The reclaimable, tillable swamp and overflow areas in Michigan, according to recent estimates of the bureau of statistics, amount to 4,400,000 acres. In respect to the swamp land area, Michigan ranks sixth among the states. In this one reclamation project alone there are great possibilities.

Co-operative effort has already greatly increased the productive area and value of low-lying farm lands by means of township and county drainage systems. The recovery of Michigan's low-lying lands, as far as the work has progressed, demonstrates their unusual value for production because of the peculiarities of their formation and composition, geographical location and peculiarly favorable climatic conditions, resulting in large part from environmental influences, such as contiguity to large bodies of water. Most of these lands, when reclaimed, will produce a wide variety of farm crops and are adapted particularly to specialized crops of high value, such as garden truck, root crops, pepper-mint, onions, celery, etc., thus increasing the resources of the state by adding both to variety and wealth.

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Group (2) includes large areas of so-called cut-over lands in the state, comprising areas of two distinct types, viz., those on which hardwoods grew and those producing pines and other conifers. Stump lands upon which hardwoods once grew, if promptly rough-burned and seeded to a mixture of grasses and legumes, and then pastured for a few years until the stumps decay, may be rapidly and cheaply reclaimed for grazing and crop growing. A larger portion of the lands in the state, comprising group (3) will undoubtedly be utilized than is at present anticipated. For this purpose, however, it being resorted to where the conditions are peculiarly suitable. These very light lands, instead of being farmed intensively in small areas, will some day undoubtedly be operated on large areas, and utilized for grazing purposes, when the proper methods of handling, seeding and improvement are solved, which they surely will be. The sand areas, under the same management, and with the proper promise of usefulness for horticultural and crop production, as well as for grazing purposes. Where the sand exists as such without a capping of soil, as heretofore referred to, the problem of agricultural production is still an unsolved one. It is a great misfortune for Michigan that some of her pure sand lands have been sold to scrupulous buyers for city sites. Unscrupulous buyers have parted from their savings of years and left without experience or a soil with which to recoup their lost savings. Experienced farmers could not make a living on these lands, and could not be induced to buy them in this way. It is unfortunate that people, particularly those without experience, will persist in buying lands without even seeing them or making inquiry of responsible people. It may be said of group (4) that the possibilities of increasing agricultural production in Michigan by drainage are practically equal to the possibilities of increased crop production in the average arid state of the West. The reclaimable, tillable swamp and overflow areas in Michigan, according to recent estimates of the bureau of statistics, amount to 4,400,000 acres. In respect to the swamp land area, Michigan ranks sixth among the states. In this one reclamation project alone there are great possibilities. Co-operative effort has already greatly increased the productive area and value of low-lying farm lands by means of township and county drainage systems. The recovery of Michigan's low-lying lands, as far as the work has progressed, demonstrates their unusual value for production because of the peculiarities of their formation and composition, geographical location and peculiarly favorable climatic conditions, resulting in large part from environmental influences, such as contiguity to large bodies of water. Most of these lands, when reclaimed, will produce a wide variety of farm crops and are adapted particularly to specialized crops of high value, such as garden truck, root crops, pepper-mint, onions, celery, etc., thus increasing the resources of the state by adding both to variety and wealth. The Upper Peninsula. The land area of the Upper Peninsula includes 10,622,240 acres, a little less than one-third of the total area of Michigan. Of this land area in farms amounted to 912,784 acres, of which 340,602 acres were improved. The number of farms at that time was 8,994. The following interesting data was obtained from a report of the Upper Peninsula Development Bureau, dated October 15, 1913, procured largely from supervisors and in some instances township clerks. Their report during the year the number of families locating on farms in fifteen Upper Peninsula counties was 1,700. Acres of land sold for farming purposes, 332,268 acres. The number of farms planted, 1,912. Acres of land sold for farming purposes, 337,248 acres. The following fruit trees were planted, viz: Apples, 88,859; cherries, 16,412; and plums, 8,103. At this time there were 761 schools, of which 45 were organized in 1914; the total school attendance was 52,018. This part of the state included 322 churches. During the year \$289,816 was spent on roads, including 1,894 miles of gravel and 1,200 miles of dirt. There included 656 miles and county roads 597 1/2 miles. The opportunities for agricultural development in the counties of the Upper Peninsula of Michigan are very great indeed. In this regard according to the census report, no county except Menominee has more than 20 per cent of its land in farms. This portion of Michigan will some day be developed into a veritable agricultural empire. Contrary to a widespread opinion that this part of the state consists of an alternation of rocky wastes and swamps, there is to be found, throughout the entire agricultural land in the state, there is a land of great possibilities for the production of legumes, pasture and root crops, and is, therefore, destined to become a notable dairy district.