

# THE CHINESE PETSAI AS A SALAD VEGETABLE

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IN THE most remarkable book which has been written on the agriculture of the Chinese ("Farmers of Forty Centuries"), Dr. King points out that the farmers of China, through a wide use of immature forms of vegetation as food, are able to produce an immense amount of food that would otherwise be impossible. These quick-growing leafy vegetables produce a crop of green leaves in a much shorter time than the plants whose seeds are eaten require to ripen a seed crop. This fact allows of the production of more crops and a larger amount of food, per year. Leafy vegetables are furthermore sown and matured in the early spring and the late fall when the hours of sunshine are too few each day to permit of the ripening of grain seed crops, that require a long period for development.

The recent discoveries of Dr. McCollum, of the Rockefeller Foundation, show that there is in the green leaves of plants the same substance which is found in butter and which he has designated "fat soluble A." This is one of the so-called vitamins and is as essential to the growth of the animal body as the carbohydrates, fats or proteins of meats, cereals, eggs, and vegetables. That animals cannot live and grow without this substance has given a new importance to the leaf vegetables in our dietary.

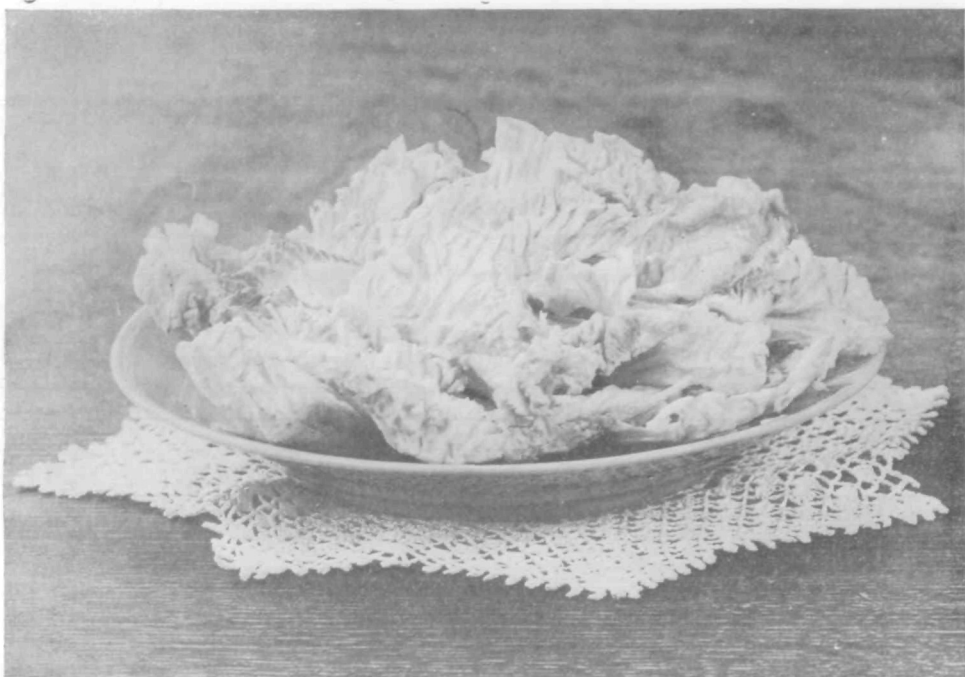
To Americans, lettuce has become the great salad vegetable, and throughout the year it is grown in some part or other of the country, and in the winter either shipped thousands of miles to our tables or grown under glass near

our great cities at a considerable expense of coal; over 40,000 tons are so grown.

In the Chinese Petsai we have a rival of the lettuce in so far as any vegetable can rival another. It deserves at least to be given the serious consideration of Americans as a supplement of lettuce. It can be produced for about half the money. It can be grown everywhere throughout the country. It is a better keeper than lettuce and, pound for pound, it probably contains as much of the valuable substance for which we eat lettuce—the "fat soluble A." Furthermore, in appearance it is more attractive.

The question of a new vegetable is so tied up with our taste, and our taste is so dependent on the name, that the term "Chinese cabbage" should never have been given to this representative of the mustard family. Technically, it is not a cabbage, and why prejudice people against it who do not care for cabbage. It is hard for the average mind to believe that anything which has the name of cabbage attached to it could by any means possible be made into a rival of the delicate lettuce when dressed with a French salad dressing and eaten in the same way.

That petsai is a rival and that we should take it into our menu and make a place for it, there is no longer any doubt in my mind. The testimony of unprejudiced people who have tried it, and the fact that there are areas of the country where the same amount of this rival can be produced easier and more cheaply than can lettuce, are facts



#### A SALAD OF CHINESE PETAIS

In brilliancy and crispness and in keeping qualities the petsai is undoubtedly superior to the lettuce and it rivals lettuce in palatability. Furthermore, a seed crop requires several months of really warm weather to mature in, whereas a leafy vegetable can produce a crop of leaves in a few weeks of early spring and in the cool days of late fall. This economy is understood by the Chinese. (Fig. 1.)

which during these times ought to appeal to every patriotic citizen.

To insist that we shall be fed on the more expensive of the foods and to refuse to eat the easier produced ones is an attitude of mind at variance with the spirit of the day.

Where can we get the most food for the money and the best of its kind and of the kinds which will keep employed every acre of land and every unemployed farmer and his equipment, are questions which the consumer should ask himself.

Of course there is no question but that this country could, in the course of years, shift its agriculture to such a degree that it would be living and working on a small fraction of the cost which it now requires to feed it. Imagine the saving which a return to a millet diet, such as is still in use by the Chinese in Manchuria, would bring about. How long it would take to adapt our digestive tracts to such a

diet it is hard to say, but no doubt it could be done.

There are certain kinds of economies which Americans in their handling of the food question can bring about, but there are others in which it is hard to imagine any great and immediate changes. In the growing of vegetables and the getting them into the hands of the consumers a degree of hand labor is absolutely necessary. If labor remains at \$3 a day this item in the cost of production will not be decreased, and it is hard to see how the cost of lettuce to the consumer can be brought down so long as these prices for hand labor continue.

If, for the same amount of hand labor, double the amount of just as good a vegetable as lettuce can be produced, there is a direct saving which deserves to be seriously considered. The only thing which stands in the way is the fashion for lettuce—the fact that every-

body likes lettuce and few know petsai. The Germans brought themselves to eat over five hundred substitutes for the things which they were fond of before the war, and Americans must learn that they cannot continue to do their utmost to help the Allies and eat just the same things which they ate before. Now is the time to take stock of the cost of production and see whether there are not cheaper things to grow than some which our fondness for certain flavors has induced the farmer to produce.

The production of roast pig has already been brought under a scrutiny, and the cost of that roast pig is now well understood. The comparative costs of producing roast beef and mutton are facts of which the public is getting every day a clearer appreciation. But the cost of fruits and vegetables and their comparative food value is one which as yet has scarcely touched our consciences.

The largest truck grower in New Jersey and one of the most successful in America has grown the petsai for several years and declares that the cost of growing and marketing it is about half the cost of growing and marketing lettuce, but more than the cost of producing field cabbage. If he could get for petsai anything approaching what he can for the lettuce he would put in a large area of it next year and make a lot of money. What he would do the other truck growers would be willing to do, and there would need be no dearth of this delicious vegetable.

If he could get for it even considerably less than the prevailing price for lettuce he would make money and the consumer would save money by eating a salad which is, after all, quite as delicious as lettuce and just as nutritious. What stands in the way of this saving? The taste for lettuce, nothing more.

In China, where a few years ago a farm laborer received an equivalent of only \$21 a year, the equivalent at that time of about two weeks' work of our farm labor, this particular vegetable is grown everywhere, and it can hardly be doubted that it is grown as much as

a matter of economy as for any other reason. If the Chinese feel they must grow this cheaply produced vegetable to save labor that costs only \$21 a year, how can we refuse to grow it for the same reasons under the stress of the war's demands—just because we are unaccustomed to it and do not think it will taste as good as the lettuce with which we are familiar.

It might be claimed that we could make a salad out of the ordinary cabbage, which would be good enough, and that since this is still easier grown than the Chinese cabbage we would be saving still more by the economy. I doubt if this is practicable at the present time, for there are so many people who do not like cabbage—cannot eat it, in fact, without discomfort—that the number of people who would give up lettuce and eat cabbage would be nothing like half the number who would take up this new salad which has no cabbage flavor when properly prepared. The saving therefore would be greater in the substitution of this Chinese petsai than it would be in any attempt to substitute ordinary cabbage for lettuce.

How can this introduction be brought about? By starting a craze for the Chinese petsai. If the demand is created the growers will produce the vegetable. What they are afraid of is its overproduction and what the Government can do is to stimulate the consumption. If the latter is stimulated the production will take care of itself. This stimulation of consumption will benefit those who grow the petsai, it is true, but as anyone can grow it, there will be no unjust discrimination.

There is this further advantage in the introduction of a new vegetable as opposed to the substitution of an old one. Every vegetable has its optimum climatic and soil conditions; these are not likely to be the same for the Chinese petsai as they are for the other vegetables, and in the course of time we will find there are certain areas which because of their peculiar fitness to grow the petsai have become famous for the excellence of the heads produced. This is the case in China where for forty

centuries this vegetable has been grown, and there is no reason why it should not be the case in this country. It is only by the shifting of crops and the addition of new ones to our list that this country is to be completely farmed to that degree of perfection which will be necessary if we are ever to support the vast population which we expect to support.

Is the Chinese petsai worthy of this effort to establish it in our horticulture? Many testimonials of people who have eaten it and who are unprejudiced can be adduced to show that it is.

#### TESTIMONIALS

While it is undoubtedly true that it requires years to test a new vegetable and be sure that it will stand the test of continuous use, there are certain facts which make it seem probable that the introduction of the petsai can be accomplished in a reasonable length of time in this country.

The American is learning to eat many new things. He is in this respect in a stage advanced over that of the modern European. His menu is a hodge-podge already of the menus of Italy, France and England, with those of Russia, Greece, and Hungary thrown in. Ours is the melting pot of menus, so to speak, and into it have come in the last twenty years the grapefruit, the avocado, the ripe olive, the casaba melon, the honey-dew melon, the wild rice, the dasheen, the sand dab, the tile fish, the green asparagus, the endive or whitlof, the globe artichoke, the soy bean, the Japanese persimmon, the mango, and others.

The Chinese restaurant has become a factor in our cities and thousands of Americans have come to appreciate the new flavors and textures of foods which are served there. This petsai is one of the staple vegetables of the chop suey, and without knowing it many thousands of Americans have tasted and liked it and will continue to do so in increasing numbers as the years pass.

A vegetable which comes to us while we are in this formative state of mind

regarding foods is not likely to be thrown out again if, like petsai, it has the great advantage of cheapness and has stood the test of centuries on the other side of the Pacific. We must not forget that nearly all of our plant foods have come to us one by one from foreign peoples and generally represent the discoveries of primitive peoples somewhere in the world. There seems to be a biological drift toward the enlargement of the menu of civilized man, and this drift is taken advantage of by the manufacturers of new foods who control their production.

Why should it be considered the wisest thing for the people in these matters of foods to be left to the influences of private salesmanship? Our food chemists know the approximate food value of most of the foods sold on our markets, but the people do not. And because they are ignorant the manufacturers of foods spend millions to teach them the value of their particular product. They make house to house visits by the thousand to demonstrate the use of some special food for which they charge often more than it is actually worth. The people have no way of finding out what it is really worth and they learn to like it and find it hard to do without. This habit, fixed by the skillful salesman, becomes the source of revenue to the manufacturer, regardless of whether a thousand calories of it cost the consumer three cents or ten cents.

On the other hand we have here in the Chinese petsai a product which is actually cheaper to produce, has presumably the same food value as lettuce, and because no food manufacturer can control its production with some trademark or patent, and because there is no advertising agency which can take it up and make a house to house canvass and teach people to eat it, years or even decades pass before, through the slow and tedious process of gradual popularization, it finally comes into our menu and stays there.

Supposing we take a conscious direc-

tion of these food habits into our hands, and, on the ground of chemical analyses and dietetic experiments carried out on rats and guinea-pigs and "poison squads" of men and women, determine the real value of these new foods; then by experiments on the farms find out the relative cost of growing them, the best places to grow them and the

extension of territory which will result by their cultivation; then on the basic groundwork of sound knowledge conduct a campaign of publicity such as no food manufacturer even dares to conduct and plant the new food product in the minds of the people where it will remain until something better is discovered.

### Heredity of Stature in Man

Dr. C. B. Davenport, Director of the Department of Experimental Evolution of the Carnegie Institution of Washington, in coöperation with the Eugenics Record Office, has completed a study of inheritance of human stature, which has been published in *Genetics*. "Stature has long been a classical object of investigation, largely because it is so readily measured. Thus, in 1889, Galton published his studies on stature in parents and children and their interrelation. This led to Professor Karl Pearson's remarkable series of investigations, 'Mathematical Contributions to the Theory of Evolution,' that founded the biometric school, which has left its imprint on biology, though it has proved disappointing in its assistance to the study of heredity. Though stature is the end-result of a number of independently varying elements, still, because of facts that determine growth as a whole, and because the length of the separate segments of stature are separately inheritable, it is possible to find some law of inheritance of the trait.

The present study was made on data derived from 3,298 children, their 1,738 parents, and a number of grandparents, uncles, and aunts. A large proportion of these were especially measured at their homes in various parts of the country. The hypothesis is supported

that while short parents tend, on the average, to have short children, they may, and frequently do, carry germ-cells which lack the shortening factors; on the other hand, all of the children of tall parents are tall. Consequently the offspring of two very short or short parents are more variable in stature than the offspring of two very tall or tall parents as 2.4 is to 2.2. Also, whereas the offspring of two very short or short parents tend, on the average, to be less extreme than the parents, this is not true of the offspring of two very tall or tall parents.

Not only is stature as a whole inherited, but also, and even more clearly, each segment of stature, such as neck, length of torso, thigh, and foreleg; and the inheritance of the length of these segments follows the same law as does stature as a whole. An interesting by-product of this study is that persons of similar stature tend to marry each other, and the more extreme their stature the more particular are persons in this respect. Among 869 matings that of a very short man to a very tall woman occurred only once, or one-tenth the expected number of times, while the marriage of a very tall man to a very short woman did not occur at all."—*From the Annual Report of the Director, 1917, pp. 128-129.*