SOME ADDITIONS TO OUR VEGETABLE DIETARY.

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Up to the present time chemistry has shown in a general way what substances are required for building and repairing the body, for keeping it warm, and for making it work. It has shown, too, approximately, what amount of lean meat, fat meat, flour, sugar, etc., ought to produce the desired result, but it has not yet shown in detail what kinds of these various types of food will suit the taste, digestion, and physiological needs of particular persons or particular conditions. An exclusive diet of salt meat and beans in the arctic region produces the physiological condition known as scurvy. In some parts of the country a diet of corn bread, bacon, and molasses has been persisted in to such an extent as to produce a widespread and almost chronic condition of biliousness. The conclusion from such cases is that in the selection of foods we must take into account the appetite, power of digestion, and physiological peculiarities of the individual; in these matters each man is necessarily his own judge. There seems little doubt, in general, that a wider use of green vegetables in the dietaries of most of our people, particularly those with healthy digestion, would be a marked benefit.

In the year's diet of wild herbivorous animals, the fats and the carbohydrates, principally stored in seeds in the form of oil and starch, furnish the chief foods in autumn, and on them the animals fatten, providing themselves with the necessary store of bodily fuel for the winter. In the spring, when they have usually exhausted this stored fat, their principal food is green herbage, and upon this they renew their muscular vigor and general vitality. A similar yearly routine prevails among savage races, as illustrated by many tribes of our Western Indians. So far as the naturalness of a diet of green vegetables is concerned, there can be no doubt that it formerly was and that it still is adapted to the requirements of the human body. But since the beginning of civilization the food of mankind has come to be more and more artificial in character, until foods are now selected more by custom than by instinct. The habit of eating salads and boiled green vegetables, commonly referred to as pot herbs or
greens, is much more prevalent in Europe than in America, and to
the lack of this kind of food, it is believed, is due in large part the
reputation of Americans as a bilious race. Of course, like all nations,
we eat a large amount of plant food, but by far the greater part of it
is derived from seeds, roots, and tubers.

All pot herbs are properly gathered in the early period of the
plant's growth, when the green parts are relatively rich in formative
and nutritious materials. The percentage of protein compounds in
the dry matter is then large, compared with its later stages, for the
plant at this time is engaged in the manufacture of the substances
necessary for its own later development, which are largely similar to
those required in the building up of

the human body. It must be borne in
mind, on the other hand, that more
than four-fifths, by weight, of the sub-
stance of green vegetables is made up
of water. Care should always be taken
in gathering or selecting pot herbs
that the plants are young and have not
become tough and stringy by the trans-
formation of their formative materials
into cellulose or other indigestible and
perhaps deleterious substances. In
preparing them for the table they
should be boiled, the time varying
from only a few minutes, in the case
of a very succulent and mild plant, to
two and even three hours, in the case
of a plant with thick, firm tissues or
containing a bitter principle. The
latter defect must be removed by long
boiling and the repeated changing of
the water. The details of cooking are
the business of the cook, and in the
following pages only such references
to this subject will be made as are
specially called for by some peculiarity of a particular plant.

SWISS CHARD (*Beta vulgaris*).—This variety of the common beet
has been cultivated and selected in such a way that the principal
development of the plant takes place in the leaves instead of the root.
The plant is sometimes called, therefore, leaf beet and sometimes
spinach beet. After sowing in spring the plants are thinned, like
beets, and well supplied with water. In late summer, autumn, and, in
more southern climates, in early winter, the leaves are in condition
for use. The leaves of the ordinary beet are also used as a pot herb,
but only in spring and early summer. Beets when raised for their
roots are sowed in drills, and as the plants increase in size the rows are thinned to the proper extent, the young plants being pulled from time to time, roots and leaves together, for boiling.

**Charlock** (*Brassica sinapistrum*).—This plant occurs as a weed across the northern part of the United States, from New England to the State of Washington, and is most troublesome in regions like Wisconsin, Minnesota, and North Dakota, where spring wheat is extensively cultivated (fig. 37). It is a near relative of the black mustard, commonly occurring with it as a field weed, but may be distinguished by its large pods, which when mature are 1 to 2 inches in length, those of black mustard scarcely exceeding half an inch. Charlock was commonly used as a pot herb in northern Europe centuries ago, but in America it has not, so far as known, been employed for that purpose. Indeed, in some parts of central New York, where it is distinguished from its relative under the name "wild mustard," it is commonly reputed to be poisonous, and is carefully avoided in gathering the young mustard plants. Charlock and black mustard must not be confounded with yellow rocket and its relative, winter cress, the latter of which is described hereafter.

**Chicory** (*Cichorium intybus*).—This plant, the ground and roasted root of which is used in small amounts to improve the flavor of coffee and in larger amounts as an adulterant or substitute for it, occurs as a weed in the Atlantic States and on the Pacific Coast, and locally in the interior (fig. 38). Thus far it is confined principally to the vicinity of cities and towns, and has not yet become generally diffused. It is closely related to the cultivated endive (*Cichorium endivia*), a common salad plant. Chicory is a biennial, which in its second year throws up a stiff, branching, almost leafless stem 2 to 4 feet high. In late summer and autumn it bears large numbers of blue flower heads about an inch in diameter and similar in shape to those of a dandelion, which open in the early morning and close after a few hours' exposure to the sun. During the whole of its first year it sends up no stem, but its leaves grow in a rosette upon the ground, closely
resembling those of a dandelion, but larger. In the spring of the second year the plant bears a still larger tuft of these leaves, which is soon followed by the flowering stem. The root leaves in their young state are the parts used as a pot herb. They contain a bitter principle and require the same process of cooking as the dandelion.

**WINTER CRESS** *(Barbarea praecox).*—This plant and the yellow rocket *(Barbarea barbarea)* often pass under the general name of mustard, but the two species may be easily distinguished from the true mustards by the form of their leaves, as well as by the technical difference shown in the cross section of the seed (fig. 39). Yellow rocket is a well-established weed in the Eastern States, having been introduced from Europe. It occurs also as a native plant upon the higher mountains from the Atlantic to the Pacific. Winter cress is in common cultivation from the vicinity of New York City southward, and to some extent reseeds and maintains itself without assistance, but it can hardly be considered under these conditions a real weed. In the city of Washington it is marketed extensively as a winter salad and pot herb. The seed is sowed in late summer after some early crop, or at the time of the last cultivation of an early fall crop, such as cabbage. It is usually sowed broadcast and is given scarcely any cultivation except the pulling of weeds. Yellow rocket itself is rarely used in this country as a pot herb.

**DANDELION** *(Taraxacum taraxacum).*—The dandelion is too well known to require any description. Although, like the yellow rocket, it grows as a native plant on our higher mountains, its occurrence as a weed in lawns and pastures is due, as with most of our other common weeds, to its introduction from Europe. While it occurs in almost all parts of the United States, it is not a common plant in and west of the Great Plains, nor in the extreme south, though it has obtained a strong foothold at a few points on the Pacific Coast. In lawns it is an objectionable weed, not so much on account of its unsightliness as because, from its spreading habit, it chokes out the proper lawn plants. It is not generally known that the market gardeners in the vicinity of Paris have been cultivating the dandelion.

![Figure 39: Winter cress (Barbarea praecox)](image-url)
for the past twenty-five years, and that at least three horticultural varieties have been developed within that time. In the United States, however, the dandelion is seldom cultivated, though eaten almost everywhere. The customary use of the dandelion in Paris is as a salad, the plants being eaten either green or blanched. When used as a pot herb the water in which the plants are boiled is changed two or three times during the process in order to remove the bitter taste.

DOCK (*Rumex*, of various species).—Two species of dock, the broad-leafed (*Rumex obtusifolius*) (fig. 40) and the curled (*R. crispus*), are common weeds in pastures, meadows, and cultivated fields, the former extending from New England to the Great Plains, the latter quite across the country. Both are perennials whose root leaves in spring are often used as a pot herb, sometimes alone, sometimes mixed with dandelions or other plants. Patience dock (*R. patientia*) is widely cultivated in Europe as a pot herb, and is grown in America also to some extent for the same purpose, but it seldom appears in our markets. In many places in New England and New York it has escaped from old gardens, where it was often known as "herb patience," and has become established as a weed in meadows. Sorrel dock (*R. acetosa*), or simply sorrel, as it is usually called in England, has appeared in the United States as a weed in only a few places, the plants commonly known here as sorrel being our native *R. hastatus* of the Middle Mississippi Valley region, and the introduced *R. acetosella* which occurs on poor soils everywhere east of the Great Plains. Neither of these two species appears to be used as a pot herb, and they would probably not be satisfactory for such a purpose. But the true sorrel dock is in common cultivation in Europe, being grown either from seed or by root propagation. This is the most acid of the plants used as pot herbs, nearly all the docks containing, in greater or less amount, an acid principle similar to that of the common pie plant or rhubarb. The fact that the young leaves of one of our native docks, *R. berlandieri*, were used as a pot herb by the American aborigines, more particularly the Pimas and Maricopas, is not generally known.
The leaves are gathered when the plant is a few inches high and eaten either boiled or raw. They have an acid taste, in this respect resembling the sorrel dock. Growing as it does in the arid region of Arizona, New Mexico, and Texas, where succulent vegetation is scarce, it is well worth a trial as a table vegetable.

Kale (Brassica oleracea acephala).—Kale, essentially a cabbage plant that does not form a head, is a common market pot herb. It bears several names, including borecole, German greens, Georgia collards, Gallega cabbage, in addition to many descriptive names of varieties. Like cabbage, it requires thorough cooking, and is less easily digestible than many other pot herbs. The young leaves of the turnip (Brassica rapa), either green or blanched, are frequently used as a pot herb, particularly in the South. They closely resemble some of the varieties of kale in both appearance and taste.

Lamb’s-quarters (Chenopodium album).—This is a common weed in cultivated fields and gardens, extending almost throughout the United States (fig. 41). It is more commonly known as pigweed, or sometimes as goosefoot, and is to be distinguished from the true pigweed described hereafter not only by technical botanical characteristics but by the fact that the herbage, particularly when young, bears a more or less abundant mealy coating, giving the whole plant a pale bluish-green color. In its young stage, when 6 or 8 inches high, the plant is very tender and succulent, and in Europe, as well as in some parts of our own country, has often been employed as a pot herb. Indeed, its botanical relationship would indicate its adaptability to such a use, since it belongs to the same family as the beet, spinach, orach, and mercury. This is perhaps the most widely diffused and commonest of the weeds which might be used for human food. The plant is an annual, and as a weed is not difficult to keep in check. In cooking, boil for about twenty minutes.

Marsh marigold (Caltha palustris).—This plant, which in the United States bears more commonly the name “cowslip,” is a native of the northern United States and British America, extending from New England to Minnesota and northwestward to Alaska (fig. 42). It grows in cold swamps and wet meadows, shooting up in the spring through the shallow water. Locally it is used among the country
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people as a pot herb, the plants being gathered when they are in bud or just as the flowers begin to open. By many it is considered superior to any other plant used in this way. From the surroundings in which it grows it is almost sure to be free from dirt or sand, and to this fact, in part, is doubtless due its popularity, for it is very much more easily handled by the cook or housewife than are plants which require repeated washings.

MERCURY (Chenopodium bonus-henricus).—Mercury, more commonly pronounced "markery," is one of the common cultivated pot herbs of Europe, and to some extent, has been introduced into our gardens. It shows little tendency to spread as a weed, and is not likely to become generally abundant in the United States. Its value as a pot herb is about the same as the related species, lamb's-quarters.

Besides these two species of Chenopodium, or goosefoot, the use of which for food has been taught us by Europeans, we have in our Western country several other species, among them C. fremonti and C. leptophyllum, both of which are native to the United States. There is little doubt that either of these, gathered at the proper season and suitably cooked, would be equally palatable.

BLACK MUSTARD (Brassica nigra).—This plant, from which the condiment known as mustard is chiefly derived, has long been cultivated in Europe for its young leaves (fig. 43). In our own country it was introduced many years ago as a weed in fields, and in some regions, more particularly in California, where it passes under the general name of "wild mustard," it has become a thorough pest in wheat fields.
rarely, if ever, really cultivated in the United States, although small areas in the corners of gardens are often left without cultivation as a "mustard patch." Its value as a honey-producing plant has added further to its desirability on farms. In hoed crops it is not difficult to keep in check.

**Orach (Atriplex hortense).**—This is an occasional garden substitute for spinach, though it rarely appears in market. Several varieties are grown in Europe, which differ principally in color, the stem and leaves varying from the ordinary bright green to a pale yellowish green with white stems or to a dark reddish purple. The plant is a native of Tartary and shows no tendency to become established as a weed.

**Pigweed (Amarantus palmeri).**—None of the common pigweeds introduced from tropical America and common in our cultivated fields, such as *A. retroflexus* and *A. chlorostachys*, appear to have come into use as pot herbs, although a variety of *A. gangeticus* is commonly cultivated by the Chinese in California for this purpose. Among our Southwestern Indians, both in Arizona and in northern Mexico, as well as among the Mexicans themselves, a native species, *A. palmeri*, is used largely in a similar manner (fig. 44). In the markets of Guaymas, in the State of Sonora, it is sold in large quantities, the young plants growing each year from seed and being gathered when they are from 6 to 10 inches high. No attempt seems to be made to cultivate the plant, the Mexicans trusting entirely to the natural supply. From the suggestive use of these species of pigweed among the Chinese and the Mexicans, a trial of some of our other species may well be made.

**Pokeweed (Phytolacca decandra).**—This is a native plant of the United States, growing throughout almost all parts, except the extreme north, as far westward as the Great Plains. It occurs commonly in rich, uncultivated ground, in open places in woods, or in almost any neglected spot. The stems reach a height of from 4 to 8 feet and bear drooping clusters of purple berries. The root is perennial, shaped somewhat like a beet, and in age becomes very large. It contains a deadly poison, which is used medicinally, and in some cases has caused accidental death. The berries, while reputed to be poisonous, are often eaten by birds, and are presumably quite harmless. In early spring the stout stems push out from the ground and are cut when only 2 to 4 inches in height. They are thick and succulent like the stems of asparagus, and are not only used by country people, but are commonly brought into the city markets, where
they are sold under the name of "sprouts." From the extremely poisonous nature of the root it is evident that care should be taken in using the plant. But the fact that they are always cooked practically removes any danger from this source, as the poisonous principle of the roots is dispelled in the boiling process. The roots, however, are bitter, and if portions remain attached to the stem the taste of the boiled herb is often disagreeable. In Mexico the plant occurs frequently about old missions, suggesting a former use of some kind, but at the present time it does not appear to be employed there as a pot herb. In the United States it is not cultivated, in the proper sense of the word, although those who bring it into the markets are careful to allow it to maintain itself in the areas in which it becomes established. The French, however, always apt in testing and making use of every kind of food, have introduced the plant into cultivation in Europe.

PURSLANE (*Portulaca oleracea*).—The common garden purslane, more commonly known as "pusley," occurs as a weed in almost every garden in the United States, yet rarely does one meet with a person who has ever eaten it or who knows of its use as a pot herb. The plant is a native of India, has been cultivated from the earliest times, and was such an early accompaniment of civilization as to have a Sanskrit name. It was carried westward to Europe, and has there been in use for centuries as a salad and pot herb. Indeed, several varieties are now known in cultivation. In the United States, however, it is known only as a weed, its principal economic value being supposed to be as a food for hogs, a purpose to which large quantities of it are devoted. Notwithstanding this use, it is treated as a weed, not as a forage plant. As a pot herb, however, it is very palatable, still retaining, when cooked, a slight acid taste. It can be heartily recommended to those who have a liking for this kind of vegetable food.

WINTER PURSLANE (*Claytonia perfoliata*).—In mountain regions from the Rocky Mountains westward to the Pacific occur several varieties of Claytonia more or less resembling the two well-known species of the eastern United States called "spring beauty." The most widely
diffused and representative among the western species is *C. perfoliata* (fig. 45). For many years this has been in use as a pot herb, though a knowledge of its employment for this purpose appears to be confined to restricted localities. The same species or a closely related one is reputed to occur in Mexico and in Cuba, and from the latter country it has been introduced into cultivation in Europe. The members of the Death Valley expedition in California in 1891 used large quantities of this plant when they came out of the desert and ascended the mountains to the west, having lived for several months without green vegetables of any kind.

**SPINACH** (*Spinacia oleracea*).—The common garden spinach cultivated everywhere in Europe and the United States may be considered the typical pot herb of these two countries. The plant, which was unknown to the Greeks and Romans, is believed to have originated in Persia and to have been carried both westward and eastward, ultimately finding its way to China as well as western Europe and America. It is an annual of quick growth, producing in early summer a large number of triangular root leaves arranged in a rosette. Several varieties of spinach are known in cultivation, as, for example, prickly-seeded spinach, Flanders spinach, and lettuce-leaved spinach. In the southern United States it is grown as a winter vegetable, the seed being sowed in August or September, and mulched with straw or salt hay. Under such conditions it produces a good crop during the late autumn and winter months.

**NEW ZEALAND SPINACH** (*Tetragonia expansa*).—This plant, which originated in New Zealand, was brought to Europe by Captain Cook in his voyage around the world, and has since been cultivated there to a greater or less extent. It is an annual, with spreading branching stems and inconspicuous green flowers. Unlike spinach, it continues to produce a crop of succulent leaves during the whole summer, and therefore is useful as a pot herb in the hot season, when almost all other plants so employed are not available. It will also withstand a considerable drought, and for this reason is especially useful in regions of limited rainfall. It would probably prove one of the most successful pot herbs for general cultivation in many parts of our western subarid region.

The plants enumerated here do not by any means comprise all the species that might be used as pot herbs, but they have been selected so as to suggest to people in every part of our country certain plants growing in their own region which are available for use in this manner. Doubtless others, particularly among our native plants, such as the common nettle, milkweed, and the round-leaved mallow, commonly known to children as "cheeses," will be found equally important.