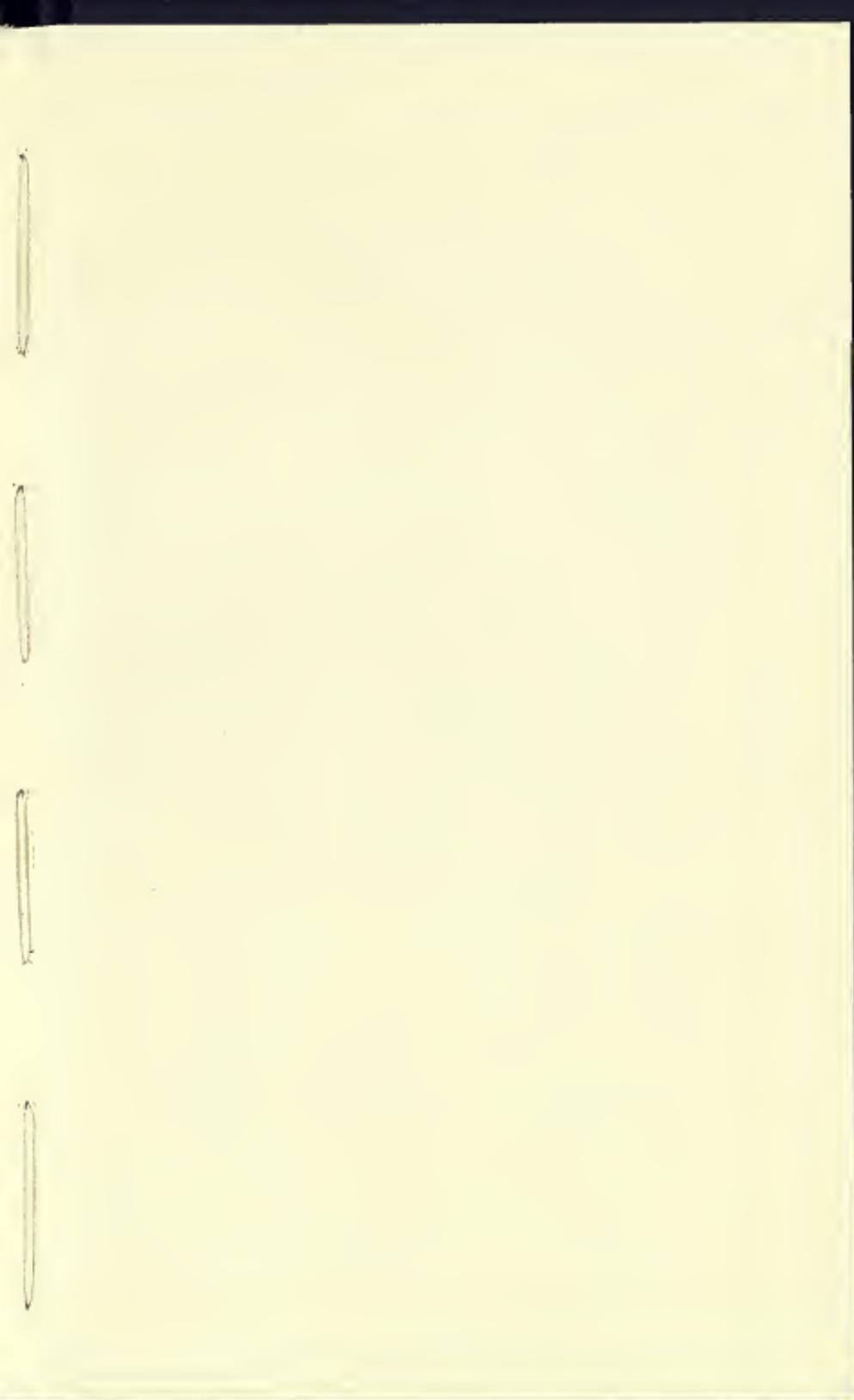
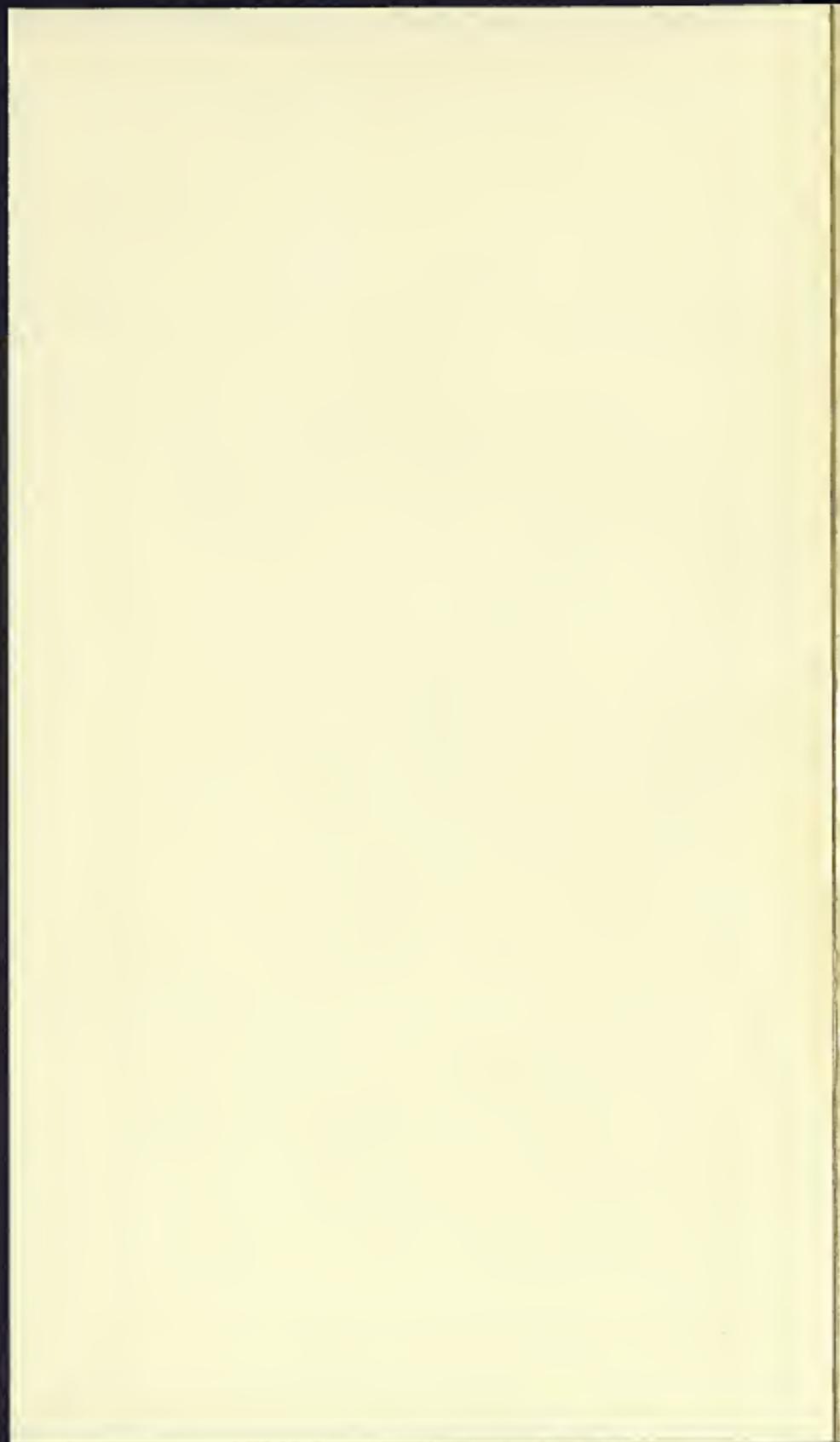


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SUGGESTIONS

FOR AN

I. Crof.

IMPROVED AND EXTENDED

CULTIVATION

OF

MANGEL WURZEL.

~~~~~  
By EDWARD RIGBY, M. D. F. L. S.

&c.

~~~~~  
Portwich :

PRINTED BY STEVENSON, MATCHETT, AND STEVENSON,
FOR JOHNSON AND CO. 72, ST. PAUL'S CHURCH-YARD, LONDON.

PRICE ONE SHILLING.

OF THE

TO

Caleb Hillier Parry, M. D. F. R. S.

&c. &c.

DEAR SIR,

IN occasionally attending to the cultivation of my farm at Framingham, I cannot be better countenanced than by yourself, who, during a long and most extensive medical practice, have allowed yourself to devote some time to the cultivation of your delightful fields at Summer Hill; in consequence of which you have been enabled, not inconsiderably, to add to the public stock of knowledge respecting that most valuable animal, the Sheep, in your elaborate work *on the Nature, Produce, Origin, and Extension of the Merino breed, &c.*

Did we stand in any need of apology for this occasional extra-professional pursuit, I should say that every occupation which unremittingly lays claim to personal and mental exertion, requires occasional relaxation; that no occupation does this more than me-

dical practice, with this addition too, that it subjects us to incessant anxiety, and the most grave responsibilities, and that, therefore, it especially requires some such occasional relief.

You will agree with me, for you know it by experience, as well as myself, that nothing more effectually recruits the mind under such circumstances, than the directing it to rural scenery, and objects connected with the science of nature, and that the varying occupation of the farm, changing, in succession, with the passing seasons, is particularly well adapted to effect it.

Allow me to inscribe the few following pages to you, as bearing some relation to agriculture; to express, at the same time, my earnest wish for the continuance of your health, and the prolongation of your useful life, and to subscribe myself, with the utmost sincerity,

Your faithful Friend
and affectionate Brother in Law,
EDWARD RIGBY.

Norwich, August 15, 1815.

OBSERVATIONS

ON THE

CULTURE

OF

MANGEL WURZEL.

FROM all the information I can obtain, the cultivation of Mangel Wurzel has considerably increased this year; a tolerable proof that the late discussion concerning it, in the Farmer's Journal and elsewhere, has not injured its reputation, and that the public opinion is still favorable to it.

I am, myself, fully convinced that it is likely to become an important article in agriculture, particularly in those districts in which the turnip husbandry prevails; for, being cultivated with more certainty, it meets the occasional failure of the turnip crop, and, at all times, offers a supply of food to the cattle, when the turnips are exhausted, which, it is well known,

produces, often, a distressing pinch to the farmer, compelling him, too frequently, to dispose of his stock, not because they are fully in condition for sale, but because he has no longer food for them.

Under this conviction, I have much satisfaction in suggesting two circumstances which are likely to facilitate its cultivation, the one insuring a more ample supply of perfect seed, and the other increasing, to a considerable extent, the quantity of roots for use, at a comparatively small additional expence.

The Mangel Wurzel, *Beta Cicla*, is a native of a warm climate, of Portugal and the south of France, where a long summer, a bright sun, and a high temperature, insure the perfect ripening of its seeds. In this climate it grows under circumstances much less favorable for this purpose; not flowering until August, the seed is seldom perfected until October; and should to shorter days be added, at that time, a cold and wet season, it is still longer retarded, and may even be wholly prevented attaining a perfect maturation. The autumn of 1812 was cold and wet, with little sun, and the seed raised, at that time, by my-

self and others, disappointed me in the summer of 1813, when I was under the necessity of ploughing up six acres, on account of its imperfect vegetation.

It becomes, therefore, an important desideratum, in growing it for seed, as much as possible; to anticipate the season: the usual mode of raising it, it is well known, is by planting the roots of the preceding year in the spring, as is the case with turnips; the earliest at which this can be done is at the end of March, or the beginning of April; if put out sooner, they are liable to be injured by frost, and at all events, they cannot make an effort to grow until the atmosphere has attained a certain temperature, and even when the requisite warmth has taken place, it is obvious that the first effort of the root will be to send out fresh radicles in the ground, as it were, to fix and accommodate itself to its new situation, before the formation of leaves, and the shooting up of the future flower stem, can take place.— This previous process, and under these circumstances, this indispensable process, must necessarily occupy a certain portion of time, and be it longer or shorter, as the season shall prove, it is certainly so much important time

lost; it is so much taken from the period of summer, and of a summer, which, in this climate, it would seem, is but just adequate, in its most lengthened duration, perfectly to ripen the seeds of this and many other southern plants.

An accidental circumstance has taught me to raise the seed in a better way, for it has enabled me to profit of the time, which, as before observed, is unfortunately lost in the common way of raising it. Having last year, in July, picked up a few of the supernumerary plants which are drawn up at the time of hoeing, I planted four of them in the garden; they grew very well, were uninjured in the winter, and in the spring produced new leaves, and pushed for the flower stem much earlier than those roots which were planted in the usual way, and now exhibit not only a much greater quantity of flower buds, but the whole plants are forwarder, more healthy and vigorous, and have a prospect of ripening the seed more early, I should think, at least by the time they anticipated the spring-planted roots in putting forth their leaves and stems.*

* It is possible, also, that plants which have never been removed may be still more productive—this is easily ascer-

I have said these plants were not affected by the winter frost, and it is obviously requisite that they should be uninjured in the winter to vegetate properly in the spring; it may be objected, therefore, that last winter was a mild one, and that they are not likely to endure the cold of every winter: my answer to this objection is, they may be artificially protected; occupying but a small space, and that in a garden, which is usually more sheltered from cold than open fields, they may be covered with straw, pea halm, long muck, or other litter, so as to be effectually secured even from severe frost.—I have this year planted out in the garden, more than five hundred roots, they are in a very healthy thriving state, and I cannot doubt will next summer produce a much larger quantity of good seed, than the roots planted in the common way.

To insure the growth of such roots, it is, however, important to ascertain the fittest time for removing them, and this another accidental circumstance has, this summer, enabled me most satisfactorily to do. It having been my
 tained by sowing seed in the garden in May, suffering the plants to remain undisturbed, and protecting them in the winter, that they may stand for seed the following year.

intention to transplant a considerable number into the garden to remain for seed next year; I wished to do it as early as I could, conceiving that the smaller the plants, the less likely they were to fail growing; but a drought came on about the time I proposed taking them up, and though not sufficient to retard the growth of the plants, did not admit of their being drawn by hand, and they continued to grow with the general crop, until they acquired a considerable bulk, and were fleshy and succulent; in this state, on the first shower which softened the earth round them, they were taken up and transplanted, all of which, as I before observed, grew immediately, and soon became vigorous.

These, I should repeat, were planted in the garden, for the purpose before mentioned; I had it also in contemplation to plant some in the field, as a trial for an additional crop, and having raised some plants in the garden, about the middle of April, to ascertain whether the seed would freely vegetate, I transplanted all thus raised into the corners of the field, in which I was sowing, or rather dibbling, for a crop. The plants were healthy, though small,

and the roots slender, but not one in fifty vegetated.

To persevere in my experiment, I was, therefore, obliged to wait until I could obtain more plants from the supernumerary ones in the field, which as I before remarked, I could not do until they had acquired a considerable size, but, on being transplanted in this state, they grew immediately and soon promised to rival the undisturbed plants in the original field. On succeeding so well, I could but lament that I had not put out a greater number of plants, as I threw away as many as would have covered three or four acres, though the piece originally dibbled was only two acres. The time of transplanting them was about the middle of July, and the piece one end of the last sown turnip field, which had just been mucked and ploughed for turnips.

In planting the roots in the garden the leaves were cut off, but they were left upon those which were planted in the field; and though the former were put in the ground two or three days sooner, and the soil was deeper and richer, the latter continued to have the

advantage of them in the growth and expansion of the leaves.

The expense of this process cannot, obviously, be considerable; the drawing up the supernumerary plants being necessary to give due space to those which remain for a crop, as in cutting up supernumerary turnips, must not be brought to the account; the principal expense will be for the labor of replanting them, for but little hoeing will be requisite.— A laborer will plant 500 in an hour, which allowing ten hours for a day's work, will be 5000 in a day; if planted in eighteen inch rows and at twelve inches distance from plant to plant, an acre will take 29,040, and it will take a man six days to put them into the ground, which at 3s. per day, being extra work, would come to 18s. The common price of planting out young trees in the great nurseries, is 8d. per thousand, and some men will plant 10,000 in a day, thereby earning 6s. 8d. Even on these terms an acre would amount only to 19s. 4d.; there is no expense, also, for seed, which at four pounds an acre, and at 4s. per pound, the present price,* would

* Should the seed be raised in the way I have suggested, it must necessarily, in time, become much cheaper; but

be 16s. I know of no crop of any account, therefore, which can be raised at a more moderate expense; at little, indeed, when compared with the value of the crop, for if the roots weigh, on an average, one pound each only, there will be a produce of thirteen tons, if five pounds, which is more probable, the produce will be sixty-five tons, and if ten pounds, which is certainly possible, it will be one hundred and thirty tons.

This experiment proves clearly that, in this instance at least, the larger plants are more adapted for transplanting than the smaller ones,* and as in many other instances, after

this will not take place very soon if the cultivation of Mangel Wurzel should much increase, and without this, there will, obviously, be little motive for growing it at all. Every one, on first beginning to cultivate it, must buy the seed for two years, as he cannot raise any himself, to be used before the third year, and should the cultivation become extensive, and, year after year, be increasing, there will, probably, be a considerable demand for it, for many years, during which time it may be well worth raising.

* In many other vegetables, and particularly in young trees, the smallest plants are, on the contrary, the most likely to live—the reason for which, more especially in trees, I have always considered to be, that in small plants the roots bear a greater proportion to the bulk of the tree than in the larger ones, and are more equal to convey the nutriment to the stem and branches; and it is, perhaps,

proof of the fact, the principle becomes manifest. The moisture in a small root of this kind, is, obviously, sooner dissipated than in a larger one; in that delicate state it is more liable to injury from any act of violence in drawing it out of the ground, or in being replanted, and the principle of life is more easily destroyed. In the larger, more fleshy and succulent root the moisture is not so soon expended, it suffers less from any act of violence, and the principle of life is consequently longer retained.

From the foregoing detail, I trust there can be little doubt of the practicability of what I have suggested, and that the Mangel Wurzel may be successfully and advantageously transplanted, for an additional crop, and that the seed may be raised with more certainty, and be more perfectly matured, both which are obviously calculated greatly to facilitate and extend its cultivation. But this will avail nothing if the root itself have no value; it will

on this principle, that, in transplanting large trees in the Flemish way, so successfully practised by Mr. Marsham, of Stratton, the heads are taken off, thereby lessening the demand on the roots for nutriment.

avail still less than nothing, if it contain any quality deleterious to cattle.

In the late discussion, originating in a suspicion that it was injurious to cows, a greatly predominant testimony was certainly in favor of the Mangel Wurzel, and the increased cultivation of it this year, as before observed, is an unequivocal proof of it; nevertheless the facts on which these suspicions were founded, remain uncontradicted, and more particularly the fact of Mr. Coke's cow having suddenly died after eating Mangel Wurzel, and unless they can be explained, they must necessarily continue to excite doubt upon the subject.

The case of Mr. Coke's cow is certainly the strongest which has been before the public, and if it admit of satisfactory explanation, as I am disposed to think it does, the question will probably be at rest.

When the roots are taken up in the beginning of November for winter keeping, the leaves are progressively stripped off, a certain quantity each day, and these only are given to the cows, to whom they afford a seasonable supply of green food at this time of the year,

of no inconsiderable value; and this is, unquestionably, the most judicious and œconomical way of consuming them, but the leaves and roots as just taken out of the ground, were thrown to Mr. Coke's cows and eaten, together with the earth, which adhered to them, and of which, at that time, there was an unusual quantity, and if swallowed, I have no doubt must have been materially detrimental to them.

The circumstance of a more than ordinary quantity of earth adhering to the roots, at this time, can be accounted for: it was owing to a peculiar process which affected many biennial plants late in the summer. There had been a very severe drought almost six weeks, under which the process of growth was suspended in many vegetables, and particularly in that which is the subject of the present discussion; the leaves withered and the root ceased to increase in bulk, and with regard to such plants, a premature winter, not indeed, as in common winters produced by a deficiency of warmth, but by a deficiency of moisture, took place, and vegetable life, at least vegetable energy was suspended. At length the rain descended, and the season being still sufficiently warm to allow of vegetable action, a renewed effort took place in

these plants, but it was not a continuance of the summer process; as the late period of suspended action resembled winter, the returning action resembled that of spring, and the same effect was produced in the Mangel Wurzel as takes place in all biennials upon the approach of a real spring: there was no increase in the bulk of the root, and of course the roots of this year were observed to be smaller than usual, there was no additional growth in the originally formed leaves, but there was an effort to produce a flowering stem, the usual spring effort of all biennials, and which would have been effected had an adequate temperature continued. The first part of the process necessary for this purpose was, however, accomplished; the numerous fibrous roots which strike into the earth from the main root, obviously to draw nourishment from the earth, and perhaps, also, more steadily to fix in the ground the base of a future towering stem, were completely formed, and as happens to other biennials, particularly, the Swedish turnip, if suffered to remain in the ground too late in the spring, were taken up with more difficulty, and brought up with them a more than ordinary quantity of soil adhering to them*

* This is not the first time I have observed this pecu-

This was the case with my whole crop, and, it may be assumed, was the same with Mr.

liarity in vegetation. In the summer of 1800 it was still more striking; the drought at that time was long and severe, and will be well remembered by the wet harvest which succeeded, by the peculiar state of the barley, which was housed before the rain came, being nearly as hard and as white as rice, and by the extraordinary growth which took place in that which remained on the heated earth, after the rain came, having been completely malted; by the bad state in which the general crop was gotten up in consequence of continued rain, and by the high price which it, nevertheless, obtained. During this drought, not only the humble plants, but many trees experienced a suspension of vegetation, and prematurely lost their leaves, as in winter: the Mountain Ash, *Sorbus Aucuparia*, was a singular instance of this winter leafless state, and on the return of rain had a complete renovation of leaves, and burst into flower, as in spring. The Marsh Marigold, *Caltha palustris*, has been remarked by Naturalists, to be very uniform in its time of flowering, the cuckoo's first note and the first appearance of this flower, as I have myself frequently observed, being singularly synchronous: but, on this occasion, its habit was interrupted, it mistook, as it seemed, the altered state of the season, for another spring, and burst untimely into flower, nor has it since wholly recovered its accustomed regularity as to the period of florescence, for it still seems to be influenced by any accidental change of temperature, and may be sometimes seen, even in winter, putting forth its bright golden flowers in ditches and other protected places. The Violet, *Viola odorata*, unexpectedly also, made its appearance, and still, its spring habit having been interrupted, it now and then shews itself at the close of the summer.

Coke's, and with all other crops indeed, under similar circumstances, it is unlikely it should have been otherwise.

It remains, therefore, to enquire, whether such a quantity of earth as was probably admitted into the stomach, might not have been injurious to the animal. And this, obviously, appears most likely to be the case in a ruminating animal: Animals of this class, as cows, sheep, deer, goats, &c. live wholly on vegetable food, and are not only delicate in their selection of it, being, what are called, clean feeders, but they do not admit it into their digesting stomach, until it has undergone a more than ordinary kind of mastication, peculiar to themselves. The admixture, with their food, of such an unmasticable substance as earth, may in the first instance, impede the process of rumination, and if conveyed into the stomach, may also interfere with the further, more important and final process of digestion; and, moreover, if we subsequently trace it into the intestines, it may be supposed, in different ways to be injurious, either by irritating or obstructing the canal itself, by preventing the due admission into the intestines of the requisite fluids, or by blocking up the mouths of

those vessels whose office it is to absorb the nutritive part of the food and convey it into the circulation.

That the injury sustained by Mr. Coke's cow was induced in some such way, or even that it might have been occasioned by the admission into the stomach of too large a quantity of fermentable food, which a saccharine vegetable most obviously is, from which, as from green clover much air is suddenly evolved, is surely more probable than that it was produced by any noxious quality in the Mangel Wurzel: for did there really reside so deadly a poison in this root, it is extraordinary that such an accident should not have happened in former years, and that the instances of fatality from it should not have been more general. Chemical analysis is, indeed, little able to detect vegetable poisons, but chemical analysis has sufficiently proved that this root abounds principally with nutritive matter, with mucilage and sugar, both which, and particularly the latter, it is known, are well adapted to support and fatten cattle.

I cannot therefore but repeat my conviction of the great value of this plant, as an article of

agriculture, and I wish to inform those unacquainted with it, that in weight, the aggregate weight of what is grown on a given quantity of land, the roots considerably exceed those of any kind of turnips, the average weight per acre of common turnips being twenty tons, of Swedish turnips thirty tons, and of Mangel Wurzel forty tons; a much larger quantity has indeed been produced; Mr. Curwen is said to have grown sixty tons an acre, and Mr. Harvey, of Alborough, near Harleston, had forty-seven tons on an acre, and could every acre be made to grow its full complement of 29,040 plants, and grow them well, there can be no doubt but, as before noticed, a still greater weight could be obtained.

At the same time, it must not be forgotten that the leaves themselves are a crop of no inconsiderable value, especially in November, when other green food has declined. I should think an acre of Mangel Wurzel leaves equal, in bulk, to an acre of green clover. The cows are very fond of them, and last year their influence on the milk was accurately noticed in my dairy; it was considerably increased in quantity, but appearing thinner, it was feared the cream and butter would be deficient, but

this was not the case, as the produce of each was equal to that under the most esteemed food, and equally good in quality. To those who keep cows near a town, and vend the milk as it comes from the cow, the feeding them on these leaves would afford a temporary increase of profit.

My first trial of the Mangel Wurzel was with seed given me by Sir Mordaunt Martin, Bart. of Burnham, who has, I believe, the great merit of being the first who suggested the taking up the roots at the approach of winter; of having, for many years, almost singly persevered in its cultivation; and of having, unremittingly, endeavoured in various ways to promote it.* The seed was sufficient for half

* Sir Mordaunt Martin published a Pamphlet in 1813, every page of which breathes benevolence; he describes, in it, his method of cultivating and using the Mangel Wurzel; he advocates, and seems to have been the first to advocate, the cultivation of the rough Cock's Foot Grass, *Agrostis glomerata*, a grass which grows under every hedge; and also suggests an improvement in a branch of political economy, at this time, imperiously claiming public attention, by proposing a scheme for bettering the condition of the poor which seems to be at once both rational and practicable. It is printed for Hatchard, London; and Bacon, Norwich.

Mr. Lindley, of Catton, has also published a Pamphlet

an acre, and produced a good crop, for besides what was saved, to plant out for seed the next spring, besides what curiosity prompted my neighbours to take, and this amounted to something, eight bullocks were well fed upon it a month late in the spring, when the turnips were exhausted. I had, indeed, many years before, raised a small quantity in a young plantation, when the benevolent Dr. Lettsom endeavoured to excite the public attention to it, by circulating a well-written French pamphlet on the subject, and by distributing small packets of seed; but not being taken out of the ground, or otherwise protected, it was destroyed by the winter's cold.

In my first attempt to cultivate it, the seed was dropped by hand in twenty-inch rows, made by a line and hoe, as in the garden cultivation of peas, &c. and this answered very well as to the crop, but required too much labor to be applied on a larger scale. Sir Mordaunt Martin recommends the drilling it at the same distance; but I have adopted Mr. Harvey's method of dibbling the seed in

on the same subject, which contains useful information, and to which I refer the reader. It is printed by Bacon and Co. Norwich.

eighteen-inch rows, with the holes twelve inches asunder. In both these methods, and particularly in drilling, too many seeds are put in, but this ceases to be an objection, if the supernumerary plants can be so well disposed of, as above suggested.

I have not given the roots much to cows, and but to few of the smaller animals, considering it most profitably consumed in fattening bullocks, but calves are very fond of it, and pigs eat it with great eagerness; I have eaten well-tasted pork fed with it, and pigs fatten very quickly with it.

If a new article pleases the farmer, every thing belonging to it is good; my steward even thought the manure made by the oxen when fed upon it better than ordinary; I cannot vouch for this, but it proves, at least, that it was negatively good, not worse than that produced by any other article of food.

It has frequently, though not very liberally, been charged on the farmer that he is slow to adopt improvements; that, long accustomed to one routine of practice, he continues it equally from prejudice and habit; and that he wants

even the effort requisite to admit new modes of husbandry, or new articles of culture: if this be true, and it may be true as applied to nearly all of the last generation, and even to some of the present, it ought to be no reflection upon him. With little advantage of education, with little intercourse with the better informed classes of society, and deriving no information from books, his knowledge was necessarily limited and stationary; he learned maxims from his father, which his father had acquired in the same way, and all his practical knowledge was derived from following the plough, reaping in the field, and driving his father's team; he acquired industry instead of science, and his limbs were more exercised than his head.

Under such circumstances, œconomy was almost the only virtue he could practise, and in such a situation it behoved him to adopt a system of great precaution; his gains were small, and he was justified in not risking their diminution by any thing like speculation, to which neither his mind, or circumstances were adapted. A deviation from accustomed modes of labor, is, generally, in the first instance, attended with additional expence, and even slight errors, on such occasions, may induce

considerable loss. Was it then to be wondered at, that under such circumstances, the prudent farmer adhered religiously to the system in which he had been brought up, that he should have relied more on industry than on ingenuity, on œconomy than on skill, and that he should have been reluctant in admitting new principles, and tardy in adopting new and deviating modes of practice? From such persons, however, it would be in vain to expect improvements; to such persons it would be in vain to recommend the cultivation of Mangel Wurzel, or even of that excellent article, the Swedish Turnip, for they were not grown by their forefathers.

But a different class of farmers has risen up. The progressive improvements in education and civilization which distinguish the present period, have found their way into the country, and their influence has been felt on agriculture. The door of science is no longer closed to the farmer, and he can obtain practical knowledge beyond the limits of the land he cultivates; he can profit of the experience of others, and in his turn, can render a public service by communicating the observations he has himself made on his own farm.

The character of his occupation is changed; it is no longer, as heretofore, the object of mere labor and simple industry, it furnishes ample exercise for the mental powers; talent and intellect are now not the least valuable part of the capital employed in it, and he becomes interested in improving them. He finds himself in a better class of society; he has gained no small advance in the scale of civilized man, he mixes with the well informed, and, by this intercourse, not only is his knowledge increased, but his manners are improved. The liberality of a few distinguished and enlightened individuals allows him even, occasionally, to associate with the first characters of the age and nation, and he has the most ample, as well as the most gratifying opportunities of obtaining practical information from persons of different classes, and from different countries. On these occasions he derives instruction from various sources; he sees well conducted experiments; he views a variety of crops and lands in different states of cultivation; he examines different kinds of stock, and hears the opinions of the best judges on their respective qualities; the principles of earths and manures, detected by chemical analysis, are made known to him, as well as the result of practi-

cal experiments, to direct the most judicious application of them;* a great variety of agricultural implements, and the newest mechanical inventions of ingenious men, are freely submitted to his inspection, from which he may take a useful hint, or derive a new principle applicable to his own farm. He partakes of the spirit of emulation excited on these interesting occasions; he finds those are most noticed, who have displayed most knowledge, and he envies the feeling of his fortunate neighbour, who returns home with some honorable mark of the approbation of the meeting; he becomes, himself, a candidate for future distinction; he is fortunate enough to suggest some improvement in the draining, irrigation, or other melioration of meadows and grass land, the bringing wastes into cultivation, or contributes, in some such way, to the advancement of his art, and in his turn, gratifies his family and friends by exhibiting a similar mark of the estimation in which he has been held.

Norfolk was the first to enjoy these peculiar advantages, and still partakes of them in a

* Kirwan—Darwin—Lord Dundonald—Sir Humfrey Davey.

pre-eminent degree. The reader knows from whom they have been derived;—the reader knows who is the great patron, I had almost said, the father of scientific husbandry;—the reader knows who has, on his own estate, set the example of an highly improved system of husbandry; he knows who has unremittingly devoted his time, his talent, and his ample fortune, not only to improve the principles of agriculture, but to meliorate the condition of the farmer; he well knows who has advocated long leases and moderate rents; and who has practically applied these principles in his liberal contracts with his respectable and extensive tenantry; he knows who has spared no expense not only in erecting and well arranging every kind of building which can facilitate the general business of the farm, but which is calculated, in no common degree, to promote the domestic comfort of the farmer's family; and who has, indeed, been principally instrumental in creating a new class in society, the respectable class I have so inadequately described.

The reader anticipates my allusion to Mr. Coke—my respect for his virtues, my admiration of his patriotism; those positive virtues

which confer real benefit on all connected with him; that genuine patriotism which essentially promotes his country's good. Such a sentiment of respect and admiration, mixed, moreover, with no slight feeling of obligation, is, indeed, irresistibly excited, whether we more generally advert to the great and permanent services which Mr. Coke has rendered the public by his successful exertions in favor of agriculture, and in the language of one who was no mean judge of human action, 'honor the man who makes two blades of grass grow, where only one grew before,' or more particularly regard him, the same important object in view, the promotion of agriculture, dispensing, annually, a magnificent hospitality, in his splendid mansion, not merely to his equals, to rank and fortune only, but to every one competent to receive or communicate agricultural improvements, to the philosopher, the chemist, and the naturalist; whether, on these occasions, we see him surrounded by intelligent and enquiring strangers, to whom he explains his various experiments, and to whom he exhibits their satisfactory results; whether we see him accompany them over his extensive and well tilled fields, to view his luxuriant crops, the judicious application of

his manures, his well directed ploughs, the distribution of his far famed flocks, and the skillful management of his other cattle; affording them, at the same time, the singular gratification of beholding the striking scenery of his vast domain; his wide extended woods, his numerous fertile farms, and his highly decorated grounds, the rich reward of human industry, where, heretofore, almost within the memory of man, was a wide, a desolate, and unprofitable waste; or, finally, whether we witness him offering the hospitalities of his well appointed tables to his numerous and well welcomed guests;* and see him, afterwards, through the medium of an exhilarating conviviality, exciting agricultural discussions; calling forth, by appropriate toasts, the sentiments of different individuals; directing their attention to the most instructive subjects connected with agriculture, and more especially, in various ways, inspiring them with his own peculiar, genuine, and active zeal for the promotion of the most honorable, because the most useful and most indispensable, of human arts.

* On these occasions, Mr. Coke has sometimes, for several successive days, entertained not fewer than from two to three hundred persons.

There is then, thanks to this distinguished person, a class of farmers, who are not unfriendly to improvements, who can appreciate new modes of practice, and who do not reject new articles of cultivation, because they were unknown to their predecessors. To such the cultivation of Mangel Wurzel may be confidently recommended; they will, I am persuaded, submit it to fair and unequivocal trial, and with the facilities for its more certain and extended cultivation above suggested, I trust they will neither be disappointed in its produce, nor in its application.

Framingham,
August 10, 1815.

ERRATA.

Page 8, line 24, for *indispensible*, read *indispensable*.

— 7, — 17, for *piece* read *place*.

— 13, — 24, after *spring* insert *they*.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It is noted that this is essential for the proper management of the organization's finances and for ensuring transparency to all stakeholders.

In the second section, the author outlines the various methods used to collect and analyze data. This includes both qualitative and quantitative approaches, as well as the use of modern statistical software to process large datasets.

The third section provides a detailed overview of the results obtained from the study. It highlights several key findings that have significant implications for the field of research. These findings are supported by a variety of statistical tests and analyses.

Finally, the document concludes with a discussion of the limitations of the study and suggestions for future research. It is emphasized that while the current study has provided valuable insights, there are still many areas that require further exploration and investigation.

Published by the same Author.

An ESSAY on the UTERINE HÆMORRHAGE which precedes the Delivery of the full grown Foetus, illustrated with Cases. 8vo. First Edit. 1776. Fifth Edit. 1811.

An ESSAY on the USE of the RED PERUVIAN BARK in the Cure of Intermittents. 8vo. 1783.

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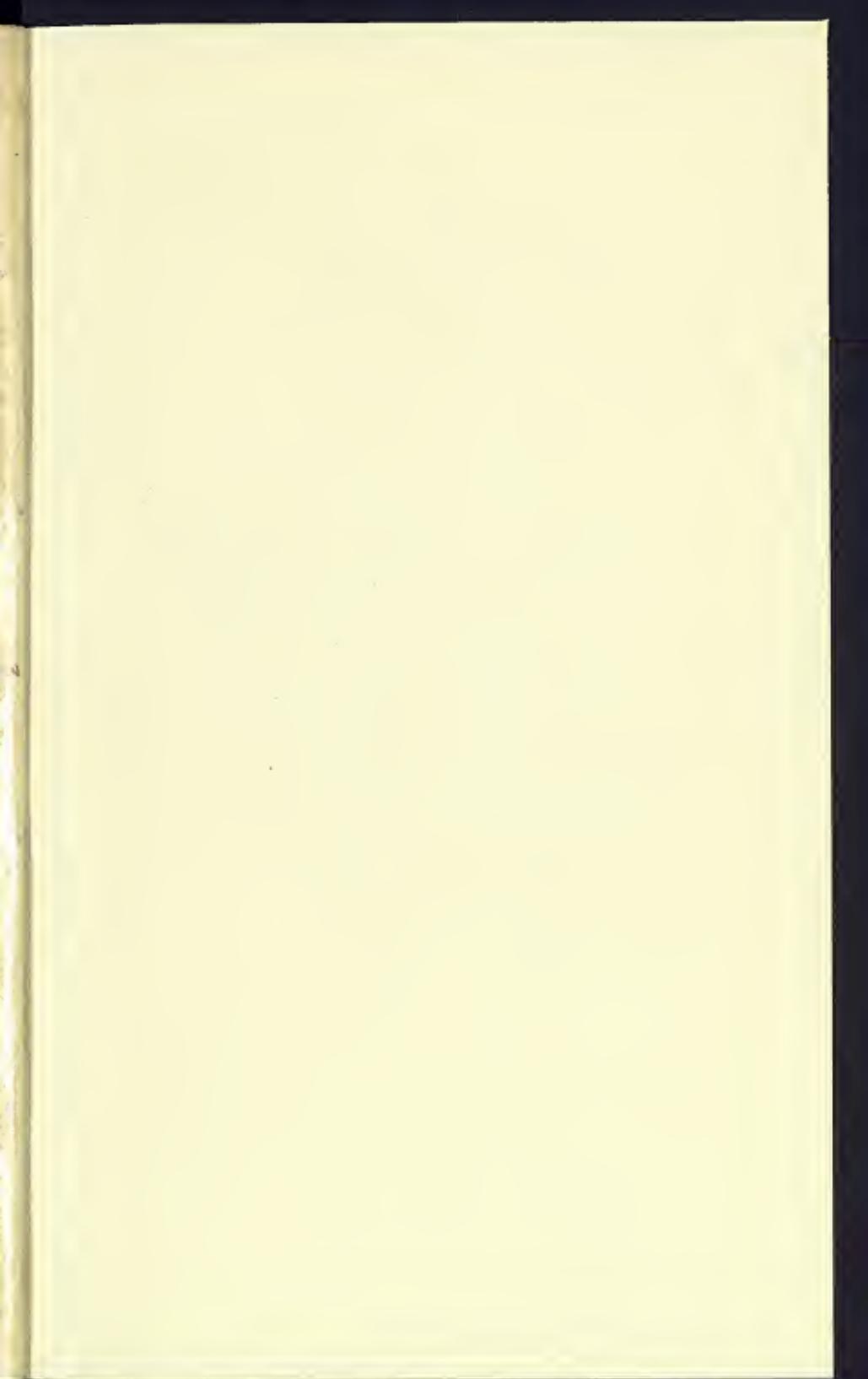
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REPORTS of the SPECIAL PROVISION COMMITTEE appointed by the Court of Guardians in the City of Norwich, with an Account of the Savings which have been produced by the late Regulations in the Diet of the Workhouse, exhibiting some important Facts respecting the Oeconomy of those Establishments. 8vo. 1788.

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REPORT of the NORWICH PAUPER VACCINATION, from August 10, 1812, to August 10, 1813. 8vo. 1813.

[The text on this page is extremely faint and illegible due to the quality of the scan. It appears to be a list or a series of entries, possibly related to a collection or inventory.]



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