

A dissertation on the true Cythisus of the ancients ... to which is added, and account of the ... Lucerne ... also a catalogue of ... seeds / [Stephen Switzer].

Contributors

Switzer, Stephen, 1682?-1745

Publication/Creation

London : T. Astley, 1735.

Persistent URL

<https://wellcomecollection.org/works/v48ayyjs>

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

N

XVI

Cyt

25

BOTANY.—Switzer (Stephen) **A Dissertation on the True Cythisus**
of the ancients, 8vo, sewn, London, 1735

25

5/-

A
DISSERTATION

On the TRUE
CYTHISUS

Of the ANCIENTS.

Proving that the
Medicago, or *Cythisus Maranthæ*,

(Not the *Bastard Sena*, as asserted by a late Author)

Is the Plant that was held in so great Esteem among
the ROMANS.

Also that it may be successfully made Use of for
the IMPROVEMENT of the most dry, barren, hilly
Land, as *LUCERNE* has been for that which is moister
and nearer a Level; and in every respect answer the Ex-
cellent Character given of it by *Columella*, *Pliny*, *Virgil*, &c.

In a Letter to a Nobleman, who favour'd this Enquiry.

To which is added,

An Account of the GREAT PROFITS which arise (if
carefully managed) from sowing the *LUCERNE*, and BURN-
ING of *CLAY*, the bad Success of which in some few Places,
may be entirely attributed to the Unskillfulness of those appointed
to manage it.

Also a CATALOGUE of the *Best Seeds*, the Season of sowing
them, and the Time of their Perfection.

By STEPHEN SWITZER.

The SECOND EDITION.

*Cythisus omni generi pecudum utilissimus est, quod ex eo citò pingues-
cunt & lactis plurimum præbet ovibus* — *Columell. de Re Rustica*
*Non ex alio pabulo lactis major copia aut melior, super omnia pecorum
ultissimus a morbis omni usu præstante* — *Plinii Hist. Nat.*
Sic Cythiso pastæ dissentent ubera Vaccæ. VIRGIL.

LONDON: Printed for THOMAS ASTLEY, at the *Rose*
over against the North Door of *St Paul's Church*. 1735. Price 1 s.

F.C. Carter (Homes) 8/5 - (29 Feb. 29)

DISSEMINATION

ON THE

CYTHUS

OF THE

WELLINGTON

Faint, mostly illegible text, possibly bleed-through from the reverse side of the page.


BY



Faint text at the bottom of the page, possibly a publisher's or printer's mark.



T H E
P R E F A C E.

 Y way of Preface, or Introduction, to this Dissertation on the *Cythisus*, which was in so great Repute amongst the Antients; I must beg leave to acquaint my Reader, that I had no Thoughts, at the first writing of it, to produce it to publick View in the manner it now appears, intending to have reserv'd it for a much more copious and general Treatise of Husbandry, which is now very far advanc'd, and with which I design to conclude what I have to offer to the Publick, had not a late Author, in a very kind and good natur'd manner, though perhaps not with equal Judgment, affirm'd, that the *Bastard Sena* or *Sene* was the *Cythisus* which was had in so great Esteem amongst the *Romans*; which would (if once received) have in a great measure, if not entirely, invalidated the Observations which, by Dint of Time and Labour, I have either collected from the most antient and approved Authors, or actually made on this useful Plant, and which from a very great Number of united Circumstances (recited in the following Letter) I have, I think, fully made out to be that *Cythisus* which *Columella*,

B mella,

mella, *Virgil*, *Pliny*, and others of the Ancients; have given so high a Commendation of; and that the *Bastard Sena*, mention'd by the Writer of the Letter from *Bargaly* near *Dumfries* in *Scotland*, to *Mr Cowell*, Gardener at *Hoxton*, Author of the *Curious and Profitable Gardener*, is no other than the *Colutea*, a Family of Plants of a quite different Contexture and Character from the *Cythifus*, and in truth not so much as a *Genus* or *Species* of it.

I have no Design, nor do I pretend by this, to cast any Reflection, much less to deny what that communicative and good natur'd Author may have said concerning the Uses of the *Bastard Sena* abovementioned to Cattle; but must confess I am at a great loss to find out which of the *Sena's* it is that he means, for there are but two or three Species of it which are very common amongst Planters, and which are kept abroad; if it is the large Bladder *Sena*, which is call'd by Botanists *Colutea Vesicaria*, it is a large rough woody, and is not generally, if at all, ever rais'd by Cuttings, Slips, or Suckers, and is not, as that Author, *pag. 7. lin. 11.* avers, apt to spread in so luxuriant a manner, as to over-run an Acre or two in so little Time as is there insinuated, if planted at two Foot and a half asunder, but by Seed, which being contained within their Bladders, comes out in great Plenty. Neither can I think it to be the same which Botanists call the *Colutea Scorpoides*, which is a very dwarf woody Plant, and though somewhat apt to spawn, is yet so thin of Leaves, and those so small, that I own I can't be easily convinc'd of the Uses it can be in Husbandry, nor that the Publick is like to reap any great Advantages from it.

If it should be ask'd how it comes to pass, that I know that the Plant I am now recommending,

is that true and real *Cyathifus* so often mention'd; my Answer is, that I have known it for above this twenty Years last past, and have for a great part of the Time had the Management (much indeed it did not require) of it, having made a great many Observations on the Quickness and Dispatch of its Growth and Hardiness; and tho' at that Time I was much less skill'd in Botany than I am now, and indeed did not know that it was this *Cyathifus*; yet from the Luxuriancy of it, for it grew so fast in those Green-Houses of which I had the Inspection and Care, that tho' there were no Fires kept in them, yet it soon over-grew all those Plants which were contiguous to it, pointing its Boughs towards the Windows, so that I then could conclude no other, than that it was a Plant design'd by Nature for a much more noble Use, than to be coup'd up in a Green-House, and that its struggling after Liberty in that elastic Manner it did, was no other than the Work of the Great Architect of Nature itself, by which the whole Orb of Sublunary Beings turn, of which more in the ensuing Narrative of it.

I am very well aware that the kindest and most indulgent, that are amongst those who deign to give this Treatise a reading, will (before they have considered the Virtues and Uses of this Plant, with the same Attention as I have) stand amaz'd at the Pains that I have taken concerning a Plant which is at best but a good Fodder for Cattle, when there are so many other Grasses and Fodders which are held in so great Esteem already, that 'tis not likely there are any that should mend it. In answer to this I dare aver, that for Durableness and Goodness there is no Fodder equal to it, and as it is a Plant which will thrive in the poorest barrenest Soil where none else will, to any Degree of Perfection, and be fit to feed or

cut green in the middle of Winter, when there are no other Grasses an Inch above Ground. I hope it will appear, that my Endeavours on this Head are not altogether uselefs and groundlefs.

It can (I humbly conceive) be no Objection to the Reality and Goodness of this Plant, that it has for these Thousand Years (for ought any body can tell) been out of use, the Plant, at least the Uses of it, having been eras'd out of all the Books of modern Husbandry that I have read, and no Footsteps remaining of it, but what are scattered up and down among the Works of ancient Writers, tho' there have been of late (now good Husbandry begins to advance) several ingenious Gentlemen very diligent in their Enquiries after it.

Amongst some others which might be nam'd, the ingenious *William Benson*, Esq; of *Newtontony* near *Salisbury*, in *Wiltshire*, (some time since Surveyor-General of the Works belonging to the Crown) who out of the great Affection he has to all useful Learning, especially Agriculture, understands what the Ancients have wrote on this Subject, and who having also translated the *Georgics* of *Virgil* with great Success; has also took some Pains in the Discovery of this Plant, though, as far as I can hear, without the desired Effect.

Also my ingenious Friend Mr *Thomas Knowlton*, Gardener to the Right Honourable the Earl of *Burlington*, who on account of his own Industry, and the opportunity he has had of being educated under the late learned Dr *Sherrard*, claims a very advanc'd Place in the List of Botanists, by a Letter I have receiv'd from him from *Lanesborough*, is greatly at a Loss to find out what it should be; as are also the Laborious Society of *Gardeners*, who in a very curious and expensive

Book

Book of Plants some time since publish'd, have been unwilling to take upon them to determine what that *Cythisus* should be, of which *Virgil* gave so great an Account. Nor have I found amongst all the Botanists any one that was certain what it was, on which Account I may, I think, justly take the Credit upon me, of being the first that has trac'd it to it's Original, at least that has brought it into publick Use for the Improvement of Land.

And indeed as to my self, tho' I had known the Plant so long (as is before hinted at) I was a great while at a loss to judge whether it was the true *Cythisus* or no, of which I am now treating, till by chance I met with the Manuscript of a late learned Physician, who mentioning the *Cythisus incanus*, &c. as a Plant of great Use; by the Description of which, after I had compar'd it with *Pliny*, and ruminated on what I had so long observ'd concerning it; I concluded, that notwithstanding the intire Silence of some Authors, and the obscure and different Names which others gave it, that this, and this only, must be the *Cythisus* which was held in so great Esteem among the *Romans*, preferable (on many Accounts) to any other Fodder that grows, and therefore highly deserving the Cultivation and Care of all industrious Husbandmen.

Upon the foregoing Considerations, being much encouraged by the Auspices of a noble Lord, to whom I have address'd this Letter, whose Name I have not yet leave to make use of, but who out of a Desire of being inform'd of it, took the Pains to examine those Authors upon whose Credit I took the following Account. I procured several Slips or Cuttings of it, and have made those Experiments of them which are there recited, and which answered my Expectation to a tittle.

I plainly

I plainly foresee that an Objection will be raised against me, by those who are my Friends and wish me well, who may at first reading of this Dissertation accuse me of want of Assiduity and Patience, and that I run from one thing to another too hastily; that last Year I was as earnest as any one possibly could be in introducing the *La Lucerne* into the *British* Husbandry, and now even before the World can be well satisfied of the Feasibility or Success of that, I fly to another, the *Cytbifus*; by which Men are hurried into Experiments faster than they are able to try them. To this give me leave to answer, tho' *Lucerne*, or medick Fodder, requires that Soil which is sandy and moist, and the *Cytbifus* that which is poor, sandy, and dry, and that therefore being two sorts of Land, the two sorts of Experiments may very well be try'd at one and the same time; that as to *Lucerne*, it has succeeded wherever People have taken proper Care, beyond whatever I promis'd the World. It appearing by a Letter I have lately received from *Warminster* in *Wiltshire*, (which is inserted in this Appendix, that it may be cut the first and second Years, that the second Year especially some part of it was cut, three other parts four times, and that in the whole it produced full six Ton on an Acre, or more; which, besides the Goodness of the Grass before any other that is common, is near double the Quantity of what would be produced any other way. And thus did I then, as much as I could, provide for the Improvement of sandy moist Land where, on Account of its Moisture, Corn would not do so well; but yet there remain'd something to be found out for the Improvement of poor heathy dry barren Sands, of which there are so many Thousands of Acres in the three Kingdoms, which from what *Columella*

lumella and *Pliny* have said on this Subject, I thought could not be better improv'd than by the *Cytbifus*, the name and Nature of which Plant I began on this Occasion to enquire more particularly into, and to re-call all those Observations I had so long ago made of it, all which I thought could not be made publick too soon, that Gentlemen and Farmers might not be deprived of one of the most useful Improvements in the World, and which is in many Cases preferable to *Lucerne*, especially for Sheep, which will not be so subject to the Rot as in low moist Grounds. And thus far for the Satisfaction of my Friends.

I know there are some, who are either averse to all new Discoveries, or perhaps envying the acquisition of any Body that shall promulge them without their Directions, or out of a prejudic'd Opinion of their own Understandings preferable to any others (for there always will be some Scepticks in Arts and Sciences, as well as in Religion and Politicks) are apt to treat Essays of this kind (tho' ever so useful) in a ludicrous slighting manner; who because it does not come within the Compass of their reading or Practice, and because it does not square with their opinionated Ideas of things, put on a solemn grave Aspect, as if they were wiser and more penetrating than their Neighbours, who with Eyes and Hands up-listed, and with Shoulders shrugg'd up in the bargain, look upon a Man as guilty of a great unpardonable Crime, when he commences Author, and upon the Promulgers of any new Discovery, or the Revival of an old one, to be wild and chimerical Projectors, and upon themselves as the only sage Persons, that have Perspicuity enough to find out, and Wisdom to conceal Matters of such great Importance, as are fit to be known by no body but themselves,
that

that complain of the intolerable Encrease of new Books, (though perhaps they have read few of those which are older) and look upon the Authors of them as a Pest or Trouble, rather than a Race of Men of any Use in the World, who snarl at other Peoples Labours, at the same time that if they read at all, they are in all probability replenishing themselves with the Fruits of their Industry, and are perhaps themselves not so wise as they endeavour to make the World believe they are. These and such like as these, I sometimes meet with, but of them I hope there are not very many, and 'tis pity (from that ill-natur'd turn into which they are got) that their Numbers should encrease, for had such opinionated narrow spirited Reasons always prevailed, all or most of those useful Discoveries, with which the World has for so many Ages been diverted and improved, would not till this Time only, but must for ever have remained in Oblivion and Obscurity; and tho' perhaps it may be true, that in History, and some other parts of Literature, the Books which are now printed, are nothing but a tautologous Repetition of what others have wrote before, and that the Publication of them is rather a Burthen on the Publick than instructive to it, yet the new Improvements which are daily making in Husbandry and Gardening, are at the same time both a sufficient Testimony of the Deficiency of old Books, and the want there is of new to explain and perpetuate those Discoveries, and will be a sufficient Justification for one who professes something of Agriculture and Rural Improvements, and in the publick Situation I am in at *Westminster-Hall*, and in the Employ of a *Seedsman*, if by any means I can contribute towards those useful and desirable Ends, without being thought guilty of the Itch of Writing. And this will be, I hope,

a sufficient

a sufficient Apology to all reasonable Persons, for my attempting to meddle in a Province to which it may be thought I am not equal; but as to Criticks, as no Condescension whatever will be sufficient to satisfy them, I shall not trouble myself much about them. But to proceed. Supposing that this is the true *Cythisus*, (which I have, I think, undeniably prov'd) it may in the next Place, in all probability, be ask'd, How I am sure that it will live in *England*, which is one of the coldest uncertain Climates in this part of *Europe*, and not so warm by much as *Italy*, *France*, or *Spain*? I answer, That they have as cold, or colder Weather in those Countries than any is in *England*, tho' their Winters do not last so long, nor are their Springs so wet as they are here; besides, from long Experience we are inform'd, that *Lucerne*, which has by some been thought a very tender Plant, will do near as well with us as them, if well ordered, and taken care off, (which I doubt it very seldom is) and from the Observations I have for a good while made of it, especially in all these sharp Frosts, it being *January* the 8th, it gives little or no way to them, tho' planted under a Hedge, quite out of the reach of the Sun, and facing the Cold, tho' all things else which stand near it, are rotting, and in a languishing Condition, all the hurt that I can perceive which happens to them, being for want of an open free Air, which is the Case of those which are kept within Doors. But of this, more in the ensuing Paragraphs.

If, again, it should be ask'd, how it comes to pass, that a Plant of that Importance which this is represented to be, and that has been so long in the World, should not be hit upon by any body for so many Years, but by one whose Business must necessarily take him off from Botanical Enquiries,

Enquiries, when there have been so many Volumes of Husbandry wrote within this five Hundred Years last past, by Gentlemen of the greatest Application and Study, of the deepest and most penetrating Genius, as well as Reputation and Credit; that there may be great Reason to suspect, that the Plant here produced is not genuine, but, according to Language often met with, an Imposition upon the World; where, say they, are the *Evelyn's*, the *Nourse's*, the *Hartlib's*, *Blythe's* and *Mortimer's*, with many others, (too many to be named in this Place) that they should not give a particular Account of a Plant which is here affirmed to be of such Universal Benefit to Mankind?

To the last part of this Question, I answer: First, that tho' I have not been so happy as to have a thorough Knowledge of all Parts of Botany, yet, from ancient Authors, I have endeavour'd to get so much as is necessary for the Knowledge of those Plants which are of the most general and publick Use in Husbandry, &c. and have consulted all those Books which have fallen into my way, where I was most likely to find Materials for my Purpose, and where the Plants I wanted were the best describ'd, which with the Observations I have made of this as well as others, I have carefully compar'd with the Original Account given by *Columella*, *Pliny*, and other Authors, and have, I hope, undeniably from thence proved, that this is that *Cytbifus* which they mean, and which was of old in so great Repute.

As to the other part, I beg leave to answer, That the Studies of speculative and ingenious Men, are often of so sublime and refin'd a Nature, that they are apt to overlook Plants of so little moment as that of Fodder, having more regard to those which are more material, and of greater

greater Use; besides, their Enquiries being of a very extensive Nature, it is no wonder that they escape some of those Grasses or Fodders which have not been of late use in Husbandry; add to this, that Persons in the common Employ, or Profession of Plants (tho' they are not the best acquainted in the Theory) yet by their Conversation with, and Experience amongst them, they may with great Reason more easily and more aptly discover several Matters worthy of Observation, both as to their Kinds, Nature of Propagation, Growth, &c. than Gentlemen of greater Speculation can; and to this one particular, I mean this fortuitous Discovery of things, is chiefly owing all or most of those Inventions, with which the World has been so long benefitted, witness that of Gunpowder, Printing, and the like, which was not accomplish'd by Persons of any great Figure amongst the Learned; but chiefly by Persons illiterate, and of no Consequence at all, not the most learned, not the most sagacious; the Divine Author of things reserving a Power to himself of discovering the most useful things, when, and by whom he thinks fit; because, to use the words of a learned Physician, " Man is a vain Being, and would
" be too apt to triumph and boast of his Con-
" quests, and neglect to admire the supreme
" Cause of Things, should all the wonderful
" (I beg leave to add the minutest) Works of
" Nature be laid open to his view at once, and
" no Secret be suffered to escape the Sagacity
" of his Enquiry.

" Besides, it is plain from Experience, that
" the Deity takes great delight to let Mankind
" into the Knowledge of his Works by de-
" grees, that they may have still fresh and
" fresh Cause to admire them, and be truly
" thankful for the great Benefits they receive
" thereby,

To draw towards a Conclusion of this Epistle, (which I fear will by many be thought too long for an Essay of the following Bulk) I hope no body, from what has been said in this Preface, or in any other part of the following Letter, will interpret, that I take upon me to understand the Nature and Culture of Plants, better than others of my Profession do; no, tho' I can't be so unjust to myself as to say, that I have been a loitering idle Spectator, in what has been this 30 Years past transacting in the Vegetable Kingdom altogether; yet I must own, that there are a great many Gardeners, whose particular Employments have plac'd them more amongst Exoticks than mine has, (which has yet been a little too) who must of course have more Knowledge of them, than it is possible for me to have. Nor do I think, that my hitting upon this Plant, and the great Uses to which it may be applied in the *British* Husbandry, before any body else has, is what no body else could or might not have done as well as myself; no, the whole seems to be owing to a particular Accident which I have elsewhere freely acknowledged, and also set it down in the plainest manner I could; notwithstanding which, the Pains that I have taken to promote whatever is really and essentially necessary, will, I hope, be some Demonstration, that tho' I am engag'd in too great a hurry of other Business, to attend some of those elaborate and curious Enquiries into Vegetation, which require that great Assiduity and Attention that Persons of Leisure and Fortune are obliged to allow for them (such assiduous constant Attendance being fit for such Persons only); yet I have endeavour'd, as far as ever my Capacity would assist me, neither have I spared any Pains to make my self as good a Master as I could of those particular Parts, which

I judg'd

I judg'd would be the most useful and serviceable to the Country where I live and get my Bread in, in those Parts especially which come within the Verge of Husbandry, I have, I may justly say, taken more Pains than any of those who generally profess Gardening have.

To conclude, as to this Essay which I am now upon, I hope no body will accuse me of being too verbose, or of using too many Words on an Improvement which (tho' little known) I can, as far as I am able to judge, affirm, that besides its being the best Fodder, that it will grow on the poorest sandy Ground that is; (provided it be soft, and in an open free Air, as in many other Places is set down) that of all the Fodders that grow upon the Ground, at least that have been to be found in any of the Books of Husbandry, either ancient or modern, none (the *Lucerne* not excepted) exceeds, if equals the *Cytbifus*, as to its Duration and Growth. All other Fodders, as *Trefoyle*, *Broad Clover*, *St Foyne*, &c. are subject to the annual Decays, or dying of their Greens nearly down to the Ground, whilst this Plant will, if not cut too late in the Year, (as from Specimens now ready to be produc'd is visible) maintain a perpetual uninterrupted Verdure, Youth, and Vigour, subject to no Hazard or Decay, continuing a lovely tender Green, fit for any sort of Cattle to eat; one, two, or three Foot high, when little else but a few decay'd Leaves of any thing else are to be seen above Ground; and when old (if our Climate be not over severe for it) it will flower all Winter long, and whereas the *Trefoyles*, *Clover*, &c. last not above three or four Years, and the *St Foyne* not above twenty or thirty at most, this (from the best Ideas I can form of it) seems to be in its Nature capable of lasting Time out of Mind,

Mind unalterable and unchanged, and not subject (if I may be allowed so to express my self) to the melancholy State of Impotence or old Age. But as it grows older, so also if it be in a free open Air, it will grow the stronger, be the more beautiful, and produce the greater Quantity of Fodder.

It may be said, that if what I have related of the great Uses and Excellencies of the *Cytbifus* be true, and that it will grow on such poor Land, then there will be no need (at least not so much as there has been) of *Clover*, *St Foyne*, &c. all which is allow'd; especially for Winter feeding, for which it is undoubtedly most excellent in the nursing of Lambs, and the preserving of Sheep from that Rot which low Grounds often subjects them too; but then every Country has not of that heathy dry barren Soil, nor can I warrant its growing on wet Ground, on the contrary am apprehensive it will not, nor can there be Quantity enough of the Plant got for all those Purposes for some Years.

To several other Queries and Objections which are or may be made concerning Improvements in Husbandry in general, or against the Raising and Propagating of this Plant in particular, there may (by some who are averse to all Improvements) be another added, which is, that if such vast tracts of Land as I aim at, may in Time be so usefully and so largely improved; then the Value of all low Lands must of course sink much lower than they are, and consequently all Landlords as well as Tenants who are so unhappy as to belong to such Estates be great Sufferers; and that it is well enough known already, that in plentiful Years Corn carries so little a Price, that Tenants can scarce live and pay their Rents.

To

To this, which is the most potent Position against Improvements of any that I know of, it may be answer'd, that it is true the Improvements on Corn-Grounds has, by the breaking up of Pasture, Downs, &c. been so great, that there is as it were a perfect Glut of Corn, and the Price so low, that Tenants can scarce pay their Rent; yet I aver, that this Improvement is of another Nature, and will not any ways effect the Price of Corn, but only Meat, which is always dear enough, and too dear for many poor People, if not middling Housekeepers to buy, and should there come any Years of Rot or Decay amongst Cattle, the Plant that I am recommending will be of singular Use. Besides, most Gentlemen who have low situated Farms, have also those which are high, so that what they lose in one Place, they get in another.

Lastly, as before hinted, that if this *Cytbifus* is so extraordinary a Plant, as has been represented, then the Improvement made by the *Trefoyles*, *Clover*, *St Foyne*, and *la Lucerne*, will be out of Date; to which I answer also, that Nature has formed several Plants, for several places; some for watry Scituations, as is the *Lucerne*, some for arable and middling Lands, as are the *Trefoyles*, *Clover*, *St Foyne*, &c. and some for those which are very high, poor, and dry, as the *Spurry*, *Lentils*, this *Cytbifus*, &c. so that while the Hills are to be cloath'd with the *Cytbifus*, the *Lucerne*, or Medick Fodder, may take Possession of those which are low, deep, sandy, and moist; whilst I would advise the *St Foyne*, *Broad Clover*, &c. for middling arable Field Lands as usual; it may by some be thought, that rich Meadow Land is too good for *Lucerne*, the natural Grass being a sufficient Recompence for the Rent, &c. of such Land;
but

but whoever will give himself the Trouble of reading the Letter from *Warminster* in *Wiltshire*, which is set down at full Length in the later Part of this Essay, will find, that besides the Latermath, good deep Meadow or Corn Land will produce six Ton a year on an Acre: whereas it must be very rich Meadow-Land indeed, that will produce above three Ton, or three Ton and a half; besides, one Ton of *Lucerne* is worth two of common Grass.

And thus have I set down all that, I think, is necessary as to the Introduction of the *Cythisus*, and the keeping of the *Lucerne*, *St Foyne*, *Clover*, &c. still on in the *British* Husbandry; all that I have to add to this Preface is, that if these or any other of my Endeavours have been, or shall be, in any Degree useful to those whose Delight is in Husbandry, Planting, or Gardening, I shall think my self very happy, promising my self, from the Generosity and Goodness of this industrious Age, that they will have some Regard to the Person, and consequently the Circumstances and Employ, of that willing, tho' unworthy, Instrument by and through whom such Improvements have been convey'd. And here, before I conclude this Preface, besides the kind and generous Acknowledgements I have met with from particular private Persons, I must take the Liberty of owning the Honour and Favour of a Letter sent me by Order of the Honourable Society for Improvement in Agriculture, establish'd at *Edinburgh*, with some Commands in my own Way, which I shall gladly execute; and hope, though this Epistle and the following Letter bears a little hard upon a Gentleman to me unknown in that Country, (he being as I am lately inform'd a Gentleman) yet when the Contents of it are duly weigh'd and put in practice, the up-land,
sandy,

fandy, heathy, Places of that Country will receive great Benefit in their feeding by it, at least it will promote those Markets in the South to which their lean Cattle are sent, to a very great Degree, since if this Plant answers the Character given of it by the Ancients, as well as by some Botanists which have cursorily wrote of it, it may be a just Query, whether the sandy Land of *Norfolk* and *Suffolk* will not be much better improv'd by this, than by Turneps or any other Improvement they have amongst them.

Another Objection which I shall answer of those who know but a little of the *Cytbifus* is, that it being a difficult, if not an impossible, thing to get a sufficient Quantity of Seed to propagate it, if it should be so useful a Plant in Husbandry as I have represented it, it may be some Years before there can be a Fund, or Stock enough of it to be got fit to supply those unlimited Tracts of Land that are promis'd to be furnish'd in this Account. To clear up this Difficulty it must be observ'd, that almost every Joint or Set of this Plant will take Root and grow, and that any large old Stock will supply as much, if not more, Encrease that way, than if it did produce any reasonable Quantity of Seed (which I don't yet despair to see neither, when the Cultivation of this Plant is better understood. And there is this one thing more to recommend it, that when any Gentleman is once possess'd of the Species, he may by Degrees raise what he pleases from his own Stocks, and by that means, in time, furnish vast Tracts of Land.

I beg leave to answer another Objection which may possibly be started; *viz.* That no Person ought to write on any Subject in the practice of which he is not entirely versed. If this Ob-

jection be allowed how many Volumes of Husbandry, &c. which were wrote before these Sciences came into Repute, would, with their Authors, be liable to Censure and Ridicule, for not having wrote fully on such things, as in the early Dawnings of those Arts and Sciences were in Obscurity. Besides, Experiments of any kind are fit only for Gentlemen of Fortune; not for a Tradesman who maintains himself by his Labour and Industry, for by that means his Family may starve while he is trying Experiments for the GOOD of his COUNTRY, it being I hope as much as can be expected from such a one, if from the Conversation he has with Gentlemen of Ingenuity and Industry, and his own curious Observations, he presents the World with Hints which, if well pursued, are likely to be of use to Mankind, leaving the farther Prosecution of it to Gentlemen, whose Interest and Inclinations lead them to a Trial of the same, with this Restraint on himself, not to trouble the World with expensive Chimeras, without probability of Success or Profit, when they do succeed.

And I must beg leave to say in my own Behalf, that I hope there is not one Improvement, which I have offer'd the publick, the Trial of which would cost 5 Pounds. Witness the Burning of Clay, the Experiments concerning the *La Lucerne*, &c.

Lastly, If there should be any Material Errata, either of the Author or the Press; which undoubtedly there may from my want of Leisure to correct, I hope the candid Reader will correct and excuse it,

A DISSER.



A
DISSERTATION
ON THE
CYTHISUS
Of the ANCIENTS.

In a Letter to a Noble Lord.

My Lord,

*New-Palace-Yard, West-
minster, Jan. 14. 17 $\frac{1}{3}$.*



SINCE I had the Honour of communicating my Thoughts to your Lordship some time in *May* last, concerning the Plant which, from so many concurring Circumstances I judg'd to be the true *Cythisus* of the Ancients, of which *Varro*, *Columella*, *Virgil*, *Pliny*, and others, have given so high a Character, as being not only the best Food (*a*) then known for Bees, Cocks and Hens, Neat, Sheep,

(*a*) *Cythisum* in agro esse, quam plurimum maxime refert, quam gallinis, apibus, capris, caprinis, bubus, quoque & omnia generi pecudum utillissimus, &c. *Columel. de Re Rustica lib. v. cap. 11.*

Goats, and all Sorts of Cattle; (the *Medica*, (b) or Medic Fodder, or *Lucerne*, not excepted) for which Cattle, as (c) *Pliny* says, would forsake even Barley itself, and that it was a Plant (for it is not properly an Herb) which might be propagated either by Seed or Sets, which would, when well rooted, flourish and prosper well on the poorest Lands it could be put on, and also endure the severest Winters which could happen, I have rais'd several of the Plants which grow in a luxuriant manner, altho' the Sets were very small, and not planted before the later End of *May*, or Beginning of *June*; when in Truth they ought to have been put in the later End of *March*, or Beginning of *April* at the latest.

My Lord, the Revival of a Plant so useful as this may be, to the World, will not, I humbly hope, be thought an unprofitable, or unnecessary Amusement and Pleasure to a Nobleman of that Generosity and good Nature so peculiar to your Great Birth, who was, upon the first Mention which I presum'd to make of it, so well pleas'd as to take a particular View of those Places in ancient Authors, on which I founded those Notions which I entertain'd of it; nor will the Prospect of the Plant itself, or of that beautiful Figure it makes through all the Parts of Vegetative History, be, I hope, less acceptable than the Ideas, which your Lordship first conceived of it.

(b) *Pliny* writing of the *Medica* or *Lucerne*, thus has it. De Cythiso, cui & ipsi principatus (meaning the *Medica*) datur in pabulis. Vid. Nat. Hist. lib. XVIII. cap. XVI.

(c) Frutex est & Cythisus, ab Aristomacho Atheniensi miris laudibus prædicatus, pabulo ovium, — Utilitas, quæ eruo, sed ocyor satietas, perquam modico pinguescente quadrupede ita ut jumenta hordeum spernant. *Plin. lib. xiii. cap. 23.*

The *Cythisus* (as the Sequel of the following Paragraphs most humbly represent to your Lordship) was originally an Inhabitant of one of the ancient Islands of the *Cyclades* now the *Arshipelago*; from whence it was dispersed over all the *Grecian* and from thence translated to the *Roman* Empire, where it remain'd for a long Time as may be learnt from their Poets, and those who wrote of Plants, and was esteem'd the best Fodder, they either planted or sowed, for their Cattle; and being carried to *Spain*, was there very happily preserved (during that great Inundation of Barbarity by which the *Goths* destroy'd *Italy*) and was probably, at last (with the *Medica*) carried back again thither, for the Beautifying and Re-improvement of those desolate, ravag'd, Kingdoms. (*d*)

To proceed, my Lord, on my Observations concerning this Plant. The Green of them (for it grows something like Dwarf Willows) tho' they are planted in a Northern Scituation, and out of the Reach of the Sun, are at the Time of the writing this Letter, a full Foot high or more, the Stalks are very tender and full of Leaves, and as fit for green Fodder now as Clover, or any other of our Grass-Seeds are in the middle of Summer, and the Plants are of so hardy an Aspect, that I am no ways doubtful but that (the flowering part excepted,) they will stand the Severity of any Winter, and in every respect

(*d*) *Augustino Gallo, an Italian Rustick Author, says, that the modern Italians recover'd the Medica, or Lucerne, after it had been lost in Italy, by the Inundations of those barbarous Nations, the Goths and Vandals; nor is it unlikely that the Cythisus should be restored at the same time, since Uerera, a Spanish Writer, says in his Book of Husbandry, that the Cythisus was cultivated in his Time in Spain.*

answer the Character given of the true *Cytisus*, by the Authors abovementioned.

I am, my Lord, naturally led into this long Account I am about to give to your Lordship, concerning the Description and Uses of this Plant, because, in a little Treatise some few Months since publish'd by (e) Mr Cowell, late of *Hoxton, Gardener*, there's a Letter from a Gentleman (who, I since hear, is very curious in *Husbandry and Gardening*) signed *A. Heron*, and dated from *Bargaly near Dumfries in Scotland*, Dec. 4. 1729. which asserts, that the *Bastard Sena* was the Plant that the Ancients valued so much for the fattening of their Cattle: His Words are these:

“ I have endeavoured to improve the Plant
 “ the *Romans* valued so much for the fatten-
 “ ing of their Cattle, called by them *Cytisus*;
 “ of all the Species of that Plant, that call'd the
 “ the *Bastard Sena* is the most acceptable to all
 “ sorts of Cattle, both Horse, Neat, Sheep,
 “ Hares, Rabbits, &c. who eat it with very
 “ much Delight.

“ It is a Shrub that is a great Increaser by
 “ Suckers, and will over-run a whole Acre plant-
 “ ed at two Foot and a half Distance in a little
 “ Time; and when at ten or twelve Inches high,
 “ may be mown to great Advantage thrice in a
 “ Year; and I never doubt but it will subsist for
 “ twenty or thirty Years together without being
 “ plow'd up.

“ It takes best planted in the Stubble Field,
 “ after two or three Crops of Grain have been

(e) See Cowell's *Curious and Profitable Gardener*, p. 7.

“ taken off ; nor does it succeed less in a poor
 “ sandy or gravelly Soil, provided they be
 “ dry, or where other kinds of Grass will not
 “ thrive.

“ Nor is there any *Red Dutch Clover*, or *St*
 “ *Foyne*, sweeter to the Taste ; and 'tis difficult
 “ to preserve it in the Winter Season from Hares,
 “ who make their Way thro' Hedges.” With
 more to the same Purpose, which is demonstra-
 tive of the Goodness and Usefulness of this Plant.
 Concluding, “ That it was a Pity that Gentle-
 “ men and Farmers had not more Knowledge
 “ of it.”

As to the Goodness of the Plant, or its Apti-
 tude to fatten and improve all sorts of Cattle, I
 have nothing to say, supposing (what from the
 worthy Account I have lately had of that Gentle-
 man, I need not doubt) that it is establish'd on
 Facts, of which I have not had Experience e-
 nough either to contradict or approve, but much
 doubt, nay am fully perswaded, that the *Sena* is
 not so much as a *Genus* or *Species* of the so much
 esteemed *Cythifus*, but rather, (as it is most evi-
 dently known by all who are in the least conversant
 in Gardens, or in the History of Plants,) of the (*f*)
Colutea Family, the Description and Character

(*f*) *Whoever is not well vers'd in the different Names and*
kinds of these two Plants (the Cythifus and Colutea) may
find them plac'd under two distinct Genders in Mons. Tourne-
fort's Elemens de Botanique, sect. 11. Genre. II. Tom. I.
Plate 416. As also in Sect. 3. Genre III. Tom. I. Plate 418.
Tom. III. Where by the Description and Plates it will be evi-
dently seen, that they have little or no Relation to one another,
at least that they are not the same Plants. The same Distin-
ction is also visible from the two Accounts given of each Plant,
by Gerrard, p. 1305. and 1299. And by Parkinson, p. 1471,
and 227.

of which are very different from the *Cytbifus*, the *Colutea*, or *Sena*, being set in two Ranges of Leaves, nearly opposite to one another, five or six, or more, on a Side; but the Leaves of the *Cytbifus* are connected or knit together three on a Bunch, on the top of the Stalk, as all *Trefoyles* are, in every part, very different from the *Colutea* or *Bastard Sena*.

Besides all which, the Seed-Vessels, which help to determine the particular Species of any Plant, are quite different one from another, the Seed of the *Sena* is contained in thin Bladders or Vessels, and is for that Reason, by Botanists, called *Colutea Vescicaria* or *Bladder Sena*; so also is the *Barba Jovis*, another Kind of the *Colutea*, which is raised on hot Beds, and is a beautiful annual or rather biennial Plant in a Garden; but the Seed of the *Cytbifus* is contained in Shells like small Pease, Vetches, or Tares, some in those which are strait, as in the *Cytbifus secundus Clusii*, and others, and some in those which are horned or crooked as the Sickle-Pease are, as is the *Cytbifus cornutus* of *Gerrard*, and the *Cytbifus Maranthæ cornutus* of *Parkinson*, of which more is said elsewhere.

Besides, the true *Cytbifus* which is described by the Ancients is an Evergreen, and blows in the Winter, whilst all the *Colutea*'s, at least those with which I am the best acquainted, blow in the Summer and are destitute of Leaves all the Winter long, which is another strong Objection not only as to the Kind, but the great Uses of this Fodder, which would be inestimably the better, if it bore Leaves and was of use in the Winter.

To this, my Lord, give me leave to add, that if (g) *Pliny* is to be believ'd, the *Cythisus* beforemenion'd has its Derivation from *Cythnos*, by some *Cythinus*, one of the Islands of the antient *Cyclades*, from whence it was carried almost all over *Greece*, where it was, as (b) *Columella* witnesses, call'd *ζέας* aut *καρυίανν* aut *τροφόν*, because it was the most useful Food of any they had for Cocks and Hens, Bees, Sheep, Goats, and all other Cattle; to this beautiful flowering Island of *Cythnos*, *Ovid* (i), in his *Metamorphosis*, seems to allude, when in the War which *Minos* King of *Crete* made upon the *Athenians*, for the Murder of his Son *Androgeus*, this, as well as almost all the Islands of the *Cyclades*, join'd with him. Whilst the *Colutea*, or *Bastard Sena* (which Mr *Heron*, in his Letter to Mr *Cowell*, says is the true *Cythisus*, so much esteem'd amongst the *Romans*; tho' it was originally a *Grecian* Plant,) was really of so little Account, that none of the Au-

Of the Original of the *Cythisus*.

(g) Concerning the Derivation of the Word *Cythisus*, see also what *Vossius*, in his *Etymological Dictionary*, sub titulo *CY*, says of it. *Cythisus*, vel potius *Cytisus*, *κύτις*, ita dicitur ab urbe *Cytiso*, ut quidem censet *Servius*, ad 1 *Ecl.* *Cythisus*, genus fruticis vel herbæ, quæ nascitur inter campos & sylvas, in *Cythisa* civitate. *Junius Phylægyrius* idem: Sed *Cythisam* insulæ nomen facit. Puto autem utrumque falli, cum *Geographorum* nullus *Cythisæ*, sive urbis, sive insulæ, meminerit. Nisi potius *Librarii* error est, ac utrobique rescribendum *Cythno*: quæ juxta *Atticam* & *Eubæam* insula est, in qua *Cythisus* inventa est. *Plinius* lib. xiii. cap. 24. *Inventus hic frutex in Cythno insula: inde translatus est in omnes Cycladas. mox in urbes Græciæ.* A *Cythno* igitur *Cythiso* nomen videtur. Vid. *Vossii Etymol. Ling. Lat.* p. 173.

(b) Vid. *Columel.* lib. de *Arboribus*, cap. xxviii. p. 231.

(i) *Florentemque Cythnon, Scyron, planamque Seriphon, Marmoreamque Paron, quaque impia prodidit arcem, Sithonis accepto, quod avara poposcera, auro.*

Ovid. Metam. lib. vii. ver. 464.

thors who have copied from them have (as far as I am able to gather) so much as mention'd it. Nor is the Original of that Plant in the least accounted for in any of the Histories of Plants or Herbals, which I have lately seen — only that it is of *Greek* Original — except it be *Ruellius*, who says, that it has its Derivation from (*k*) *πολυλέα*, the Fruit of which is very good to fatten Sheep. But this I fear was a borrowed Mistake, and has been perhaps the occasion of many others which have been committed on this Head.

And this, my Lord, leads me into a more particular Account of this Plant, which is the undoubted *Cythisus* of the Ancients, and to show the Reasons why I am so confident it is, and that its Uses are what those Authors of Antiquity have set down, also to shew the Reasons, why I believe it may be introduc'd into the *English* Husbandry, if we can but get Seed from abroad, or have a proper Scope of Time given for encreasing it, by Cuttings or Slips, every bit of which, if but an Inch or two long, will grow; nor is this any new Discovery, but the revival of a Plant which has been as it were obliterated and forgot by Time, and has been for many Years kept in close Confinement (much against it's will in Green-houses) where its only Fault was, that, without any advantages of Fire, it grew so fast as to fill up all the Alleys through which one was to pass, and by its luxuriant growth choak'd up all those Plants which stood nigh it, in such a manner, that they have been obliged in many places to cast it out.

(*k*) *Colutea æ*, f. *Ruel.* a *πολυλέα*; arbor cujus fructu oves admodum pinguescunt. *Vid. Ruellius, de Nat. Stirp. p. 24.*

What I have said on this Head will not I hope be judg'd by that Gentleman, or any of his Friends, to be the produce of Ill-nature, either to reproach the Author of the Mistake, or out of Design to advance my own Notions above any body's else, but purely out of a just Regard to Fact; nor can it be indeed any great Reflection on the worthy Author of the aforementioned Letter, whose distant Situation and great Age are such, as may well take him off from the Pursuit of that Knowledge, which is necessary to make him acquainted with that infinite Variety of Plants, which the more Southern Parts of the World produce.

But now, that I may in the best and clearest manner, represent to your Lordship, the true Description and Uses of this Plant, the true *Cythifus*, and demonstrate that it is really that Plant which was had in so great Esteem among the Ancients, be pleas'd to pardon me, if thro' a Labyrinth of the best Authors of Repute, both ancient and modern, I trace it from its Original, and by comparing what they have wrote on this Subject, as well as by my own Observations on the Plant itself, I may convince all that oppose it, that this Plant, and this only, is the true *Cythifus*, which was propagated by them.

The Accounts which the most celebrated of all the *Grecian* Authors have given, as *Galen*, *Hippocrates*, *Aristomachus*, and others, are summ'd up by the most learned of all the modern Botanists, as the two *Baubinus's*, *Parkinson*, *Gerard*, *Ray*, &c.

To begin then with the *Latins*, the best Accounts we have of it are from *Columella*, or rather *Pliny*, the last of whom says the Bark or Coat of it is of a whitish Aspect: “ And that if any

“ one would express the Image or Likeness of
 “ it in a proper manner, it was like or rather
 “ indeed it really was the narrow leav'd Shrub
 “ Trefoyle, which he had before observ'd would
 “ be in full Perfection in three Years after the
 “ sowing or planting of it. (1)

Of this Quality is the *Cythisus* of which I am now writing; but what makes a very great Impression on me, as to the Truth of it, is its flowering all the Winter, which none of the *Cythisus* or *Colutea*'s do; for *Pliny*, speaking of the last time of Mowing it in the Book and Chapter before mention'd, says, *Demetitur verno æquinoctio cum florere desivit*; it is cut at the *vernal Æquinox*, when it has left off Flowering; on which account *Delacampius* in his Notes on that Chapter, is very express when he says, *tota hyeme floret*, it flourishes all the Winter, as does the *Cythisus* I am now recommending.

Columella, in his Account of the *Cythisus*, though he was more particular on the Uses and Virtues, and the manner of its Propagation, has placed it in two distinct Parts of his Treatise, first under the Title of Herbs, as in *Lib. v. Cap. xi.* of his Treatise *de re rusticâ*. And again, in his Treatise *de Arboribus, cap. xxviii.* By which it appears very plainly from him, that the Plant by them meant, was of an arborescent or rather frutescent Turn or Growth, like that of the Willow, and not properly an

(1) — *Canus aspectû, breviterque siquis exprimere similitudinem velit, angustioris trifolii frutex. Plin. Nat. Hist. lib. xiii. cap. xxiv.*

Herb, which the Editors of the Index to the four Rustick Authors, seem to mean, when they say, *sub Titulo, (C.) Cythbisum surculum esse non herbam — Cythbisus duplex est, Cythbisus frutex est, &c.* all which are so exactly agreeable to the growth of the *Cythbisus* I am now upon, that no body that ever saw it can, I think, raise any dispute about it.

Permit me now, my Lord, to recite what the most Learned of all the *European* Botanists (who seem to have copied all, or most of their Descriptions of it from the *Greeks*;) have said on this Head; and which, from all the Circumstances they have given of it, is the *Cythbisus verus*; and which Mr *Ray* (*m*) in his *History of Plants*, says is the *Cythbisus incanus siliquis falcatis*, of *C. Baubinus*, the *Cythbisus siliquâ incurvâ, folio candicante*, of *J. Baubine*, the *Cythbisus cornutus* of *Gerard* (beforementioned) and the *Cythbisus Galeni creditus Maranthæ, cornutus* of *Parkinson*, who does not stick to affirm it to be the supposed true *Cythbisus*, or horned *Trefoyle*, of which he gives the following Account.

(*n*) This *Cythbisus*, (as *Galen* saith) groweth to the height of a *Myrtle*, or as *Pliny*, *Columella*, and *Straboto*, to the height of a *Mean* (or as I take it, rather the *Laburnum* or *Bean*) *Tree*; which many, as *Lagdunensis* saith, take
 “ for no other than the *Medica Lunata* (and
 “ is yet described by *Bester*) as it grew in
 “ the *Bishop of Cystos’s* Garden, to be in
 “ some sort answerable to what *Matthiolus* setteth
 “ forth of it. For acknowledging his former

(*m*) Vid. Raii *Historia Plantarum de Herbis flore papilionaceo seu leguminosis. lib. xviii. p. 973.*

(*n*) Vid. *Theatrum Botanicum, Park. Tribe 16. Cap. 54. p. 1471.*

“ Error,

“ Error, in mistaking the *Trifolium Caballinum*,
 “ or *Lucerne*, to be the *Cytbifus*; and, finding
 “ in *Galen* that the *Cytbifus* was a Shrub, not an
 “ Herb, he sheweth this Plant which he received
 “ from *Artufus* as the right, and therefore could
 “ be no *Medica*, (which is a small creeping Herb,
 “ as all those sorts are) and growing to be two
 “ Cubits high, covered with a grayish or an ash
 “ coloured Bark, the Wood whereof is firm and
 “ hard, the Leaves are hoary and whitish, as
 “ is the whole Shrub without order, three to-
 “ gether on short foot Stalks, the Flowers are
 “ of a gold, yellow, shining Colour, like unto
 “ Broom, the Seed grows in crooked Pods; this
 “ *Cytbifus* also, which is the seventh kind produ-
 “ ced by *Gerard* (o), and called by him *Cytbifus*
 “ *cornutus*; and as he saith hath many tough
 “ hairy Branches, rising from a woody Root,
 “ four or five Cubits high, which are divided
 “ into sundry smaller Branches beset with Leaves
 “ like the Meadow *Trefoyle*; among which come
 “ forth yellow Flowers like Broom, that turn
 “ into crooked flat Pods like a Sickle, wherein
 “ is contained the Seed, tasting like the Cuir
 “ or *Ligumen*; the whole Plant is hoary like
 “ the *Rhamnus*, and being broken or bruised,
 “ smelleth like *Rocket*.”

It is called, says the same Author, pag. 1306.
 by the *Greeks* *κὺθνιστον*, that is to say in Latin,
fœnum fertile, or fruitful Hay; and does, as *Hip-
 procrates*, in his Book of the Nature of Women
 and Women's Diseases, says, encreases their
 Milk when they are subject to be dry. And
Aristomachus of *Athens* (as we have it in *Pliny*)
 orders it to be given with Wine, and likewise

(o) Vid. Gerard's *History of Plants*. lib. iii. p. 1305.

to be boiled in Water for Nurses to drink when their Milk fails. Of what use it is to Bees, is also found in the same Author, as he has it from *Democritus* and *Aristomachus*; the Wood of this Plant is so tough, that (p) *Bessus* relates that the *Turks* make the Handles of their Swords with it.

The Description which one of the *Baubines* gives (q), does in a great measure agree with that of *Parkinson* and *Gerard* with this Addition, that the Legumen, or Fruit proceeding from it, is not in Perfection till towards the beginning of the Summer, which also agrees with what *Pliny* and his Commentator (which are already quoted) says on this Head; as to its flowering, seeding, and cutting, there is another Matter observable, that the Pith of the Stock of this Plant, when it is old, is black like Ebony, which has occasioned some to give it a Name relating to that Property. Add to all these Testimonies what *Tournefort* sets down pag. 143. who, from its healing and fattening Quality calls it *Medicago* (r), and from its Similitude

to

(p) Ex hujus ligno ensium manubria Turcæ conficiunt, & Caloieri Patmi sphaerulas precatórias efformant. *Raii Hist. Plant. lib. xviii. p. 973.*

(q) *Cytisus Maranthæ* frutex est totus candidus, eam altitudinem attingens ad quam myrtus crescit. Folia singulis pediculis terna, retusa & nonnihil fissa, quæ si digitis terantur odorem Erucæ proximum, gustata verò Cicer recens æmulantur. Florem excludit in ramorum cacuminibus, lætum aspectuque pulcherrimum, colore luteum sed saturato, (parvum, Genistæ pilosæ flori proximum, ex longo pediculo.) *Siliquas* producit pulchras, laticas, contortas unâ & nonnunquam pluribus spiris, in quibus *Semina* parva, vix ineunte æstate maturescentia. Caudex nigrum cor retinet Ebano simillimum, quod evenit ratione vetustatis; nam in adolescente non observatur. *C. Baubin. in Pinace, p. 389, 390.*

(r) The word *Medicago* is probably of *M. Tournefort's* own making, not being to be found under that Title in any other Book of Botany, and from its healing and fattening Quality, seems to

be

to the Herb *Trefoyle*, which being put together is the *Medicago trifolia incana frutex*.

By this time your Lordship will, I humbly hope, be satisfy'd that I have taken some Pains in the perusing of those Authors, from whom I was likely to procure a proper Account of the *Cytbifus*, the unanimity of whom will, 'tis hop'd, be a sufficient Warrant for what I have said on this Head; but least I should boast of my Performance too soon, your Lordship's Goodness will, I flatter myself, pardon me whilst I relate that (upon reading what the Ingenious Society of *Gardeners* have wrote contrary to my Opinion) I was at first at a Loss what to say in Defence of my favourite Plant the *Cytbifus*, and should have given it up had not my Ideas of it been strongly rooted; for after they had given the Character and Names of it, they proceed with great Exactness to relate, " that this was the Plant which was by " many supposed to be the *Cytbifus* mentioned " by *Virgil*, in his *Georgics* (I rather think they " mean his *Bucolics* because it is but once men- " tioned in the *Georgics*, but four or five times in " his *Bucolics* who have been thereby led to " propagate it in *England*, for feeding of Cattle. " Whatever the *Cytbifus* of *Virgil* was, we shall " not (say they) undertake to determine; but that " this will never answer the purpose of feeding " Cattle in *England* we can affirm, for in very " hard Winters it is apt to be so cut, that it

be derived from *Medicus* or rather *Medico* and *ago*, were it not that its Derivation according to *Pliny* is from *Media*, from whence it was (as he affirms) brought after those Wars for the Improvement of Husbandry in *Europe*, and not from *Medica*; but that the *Medica* and *Cytbifus* are a kin to each other, is found in some *English* Herbals, and so near, that they have sometimes been taken for one another; and this probably was the reason why *Tournefort* in his *Elemens de Botanique*, Tom. I. p. 328. says *Medicago* est un diminutif de *Medica*, comme qui diroit une plante qu' approche de la Lusérne.

“ hardly

“ hardly recovers its Verdure before the middle
 “ of *May* and it is a hardy woody Shrub, so
 “ that none but the extreme Parts of the Shoots
 “ are fit to be given to Cattle; nor does this
 “ Shrub afford Shoots of any considerable
 “ length, so as to bear cutting more than once
 “ in the middle of Summer: But however unfit it
 “ be for feeding of Cattle, it is a very beautiful
 “ Shrub in a Garden, and continues flowering
 “ at least seven or eight Months; which, to-
 “ gether with its Silver-coloured Leaves, adds
 “ to the Variety of flowering Shrubs. This was
 “ (say they) with Care preserved in Green-
 “ Houses, till of late we have found it grow
 “ well in open Air, provided it have a dry Soil,
 “ and is sheltered from the cold Winds.”

This Account of the *Cythisus* had like to have
 made me give up my favourite Plant, not know-
 ing what it might be that this Body of experi-
 enc'd *Gardeners* meant, because their Account
 did not agree with the Observations I had long
 made of it; for, in the first Place, the Severity
 of the present Weather * is as great as any
 that has been for some Years, and yet the
 Green of this Plant is not in the least hurt, altho'
 the Sets being planted late, as before recited, are
 very young and tender; but what they say of
 its shooting so very slow, and that it does not
 require to be cut above once in the Summer,
 made me apprehend that we either were not right
 together in our Notions about the Genus and
 Species of this Plant, or that they had not much
 experienc'd it, since 'tis very visible that it will
 shoot like a Willow, and may be cut five or
 six times in a Year when well establish'd. The
 Hardness of the Wood is an Observation quite

* *Jan.* 30. 1730.

different from what I have made upon the *Cythisus*, the Branches being of themselves very tender, and so weak as to prostrate themselves in a hot Day, when there has been no Sun for a pretty while, tho' they rise again in the cold (I add the coldest) frosty Mornings that happen, and the Boughs are beset with tender Leaves of a mealy Bean Taste.

Upon this I apply'd myself to one of the Members of that industrious Society, who having the Plant growing at that Time, I expostulated with him, concerning what had been set down in the foregoing Passage; he agreed with me that it was the Plant they meant, but that after all, he believ'd there were few or none of their Society, who had Experience enough of it, to tell whether it would live without doors all the Winter for Fodder or no.

Not satisfy'd with this, I apply'd myself to the Ingenious Mr *Phillip Miller*, Botanick-Gardener at *Chelsea*, who is now going to favour the World with a large and very useful Work, who according to his usual Generosity, Openness, and Freedom, imparted I believe all, or the greatest part of those Observations which he had made about it; particularly, that he had try'd it for a Nobleman in *Gloucestershire*, who is a very great Lover of Husbandry; and for a Gentleman in *Wiltshire*, whom I have had occasion to mention in the Preface, that it would not do at all on clayey Ground, and but indifferently on Gravel; and that tho' it might endure abroad in common Winters, (such probably he meant wherein Pease, Beans, and other things which are apt to perish in severe hard Winters would) yet much doubted the Success of it in those which were very cold indeed, and then carried me to
see

see a Plant which the Frosts at that time had much injured.

Notwithstanding which I was not at all dismay'd, when (upon my Return to my own Plants) I found them as fresh as ever, upon which I suppos'd that the Reason of their being alive and fresh, and the other in a languishing Condition, was owing to two or three Causes; the first was, mine were young and healthy Plants, the other, a Plant of some Years standing, *and which had been cut down as it ought*; another Reason was, that my Plants were eartht up well, and a Trench dug at the Foot of them, which had drawn off all superfluous Moisture from the Roots. Whilst that Plant which I saw in the Garden aforesaid, stood on level Ground, by which the Roots might suffer as well as the Head. Upon which I concluded, that the only way to preserve the *Cythisus* in Strength and Vigour was to keep it often cut, and then, like Oziers, Peach Trees, or any thing else of that kind, it would strike deeper Root, and consequently shoot up the thicker and stronger: On the other hand, I saw by the look of Mr *Miller's* Plant, that it had been headed very little, if at all, there being much large old Wood above the Root, that appear'd to be more than one or two Months, nay even more than one Years Growth; and that nipping or cutting the *Cythisus* often, is conducive to the making it grow strong, I judg'd from a few Plants, which were cropt late in the year by a Hog which broke into the Garden, and which were stronger and more sturdy than those which were not cropt at all, that this sort of Management is found to be useful to the common White-thorn, and even to Trees which, being more tender, are kept in Green-Houses, to the White-thorn especially is that an-

cient Wood-man's Proverb *cut it and have it*; and though one indeed is to be cut in as few Months, as the other is Years or fewer, yet the Reason is the same for both; but supposing the worst that can be, and that this Fodder should be in some very severe Winters cut off, yet it answers what the Ancients have said of it, *viz.* that it may be eat green eight Months in the Year, and dry the other four; one thing I am now doubtful of is, that the Wetness of our Springs are such, that we must never hope for Success in making Hay at the Vernal Æquinox, as they did in *Italy* and *Greece*, but must take care to make it in the Summer.

And now, my Lord, after I have detained your Lordship so long, with a Description of the true *Cythisus*, and answer'd all the Objections which are raised against it, and proved (I think) beyond all dispute, that the *Bastard Sena* is not so much as a Genus or Species of that Plant, which was had in so great esteem amongst the *Romans*, as the Author of the aforesaid Letter from *Bargaly* supposes, it is time for me to give your Lordship the best Account I can of its Virtues and Uses, and of the Methods which may be taken to propagate and encrease it; being a Plant which (tho' it has been long confin'd within the scanty Limits of a Green-house) will now, 'tis hop'd, be releas'd from its Imprisonment, and at length become the Decoration and Improvement of deserted Commons, and waste uncultivated Fields; and tho' I know I am but making a naked Repetition of what your Lordship has long ago well digested in the Original, yet since this Letter is by your Lordship's Permission designed to appear in Print, for the publick Good, I hope I shall be excused for this bold, tho' useful, Attempt,

Although

Although *Pliny* relates that the *Cythisus* was transported from the Island *Cythis* or *Cythisos*, and from thence spread all over the *Grecian* Empire; yet I am not well enough skill'd in that Language to know whether *Homer*, who wrote of things in general, or *Hesiod* who wrote of Husbandry in particular, gave any Account of the Virtues and Uses it was of to the World, much less of the Propagation of it; neither have I leisure at present, to call any Body to my Assistance.

Democritus and *Aristomachus* did indeed, as *Pliny* testifies, promise great things as to its uses to Bees; but their writings on this Head, are, I doubt, long ago obliterated and lost.

Cato, one of the first *Roman* Writers in Husbandry (which is extant) did not, as I remember, write any thing about it; and what *Varro*, who followed him wrote, is so concise, that little or nothing of Use can be collected from him.

Columella, of whose account of it, I have already said something, and shall by and by say more, has treated of it in a much larger manner than other Rustick Authors, and is indeed much to be minded; but whether he wrote from his own Experience, or from what he had collected from the *Grecian* Writers, is uncertain; be it as it will, whatever he has wrote is perfectly agreeable with the Nature of the Plant; and were there no other Book wrote of it besides, the Propagation and Uses of the *Cythisus* might be learned from it.

Virgil, who, as all Authors agree, was set at work on purpose by *Augustus* to retrieve the decays that Agriculture labour'd under, during the Declension of the *Roman* Common-Wealth, and who is generally suppos'd to have copied what he wrote from the *Grecian* Authors, was one of
the

the first amongst the *Romans* who tun'd his Lyre to this delightful useful Plant.

In his ninth Pastoral between *Lycidas* and *Mæris*, when he is going to retake the Possession of his Estate, he hints at the great Uses it is to Kine, especially Heifers, where thus *Lycidas*,

*Sic tua Cyrneas fugiant examina taxos,
Sic Cytiso pastæ distentent ubera vaccæ.*

ECL. ix. ver. 31.

Thus English'd by Lord *Lauderdale*.

So may thy Swarms avoid the *Cyrnean Yew*,
And Milk in plenty from thy Heifers flow.

And in his first Pastoral, writing of the Pleasure the Goats take in eating it, he thus has it:

Insere nunc, Melibæe, pyros, pone ordine vites.

Ite meæ, felix quondam pecus, ite capellæ.

Non ego vos posthac, viridi projectus in antro,

Dumosa pendere procul de rupe videbo.

Carmina nulla canam, non, me pascente, capellæ,

Florentem Cytisum, & salices carpetis amaras.

ECL. i. ver. 74.

Thus English'd by Lord *Lauderdale*.

Go, *Melibæus*, now. Wretch that I was,
To prune my Vines, or plant the Peary Race.
My once dear Flock, my Goats, I bid adieu;
No more shall I on Banks and Cliffs for you
Extended, watch how you in safety go,
When climbing heights, or feed on Shrubs below;
I to my Flock no more shall sing soft Strains,
As I was wont, when grazing on the Plains,

Or lead them where luxuriant *Trefoyle* grows,
Or on the *Sallow's* bitter Rind to browse.

And in his second Pastoral.

*Huc ades, ô formose puer. Tibi lilia plenis
Ecce ferunt nymphæ calathis: tibi candida Nais
Pallentes violas & summa papavera carpens,
Narcissum & florem jungit bene olentis anethi.
Tum casia, atque aliis intexens suavibus herbis,
Mollia luteola pingit vaccinia caltha.
Ipse ego cana legam tenera lanugine mala,
Castaneasque nuces, mea quas Amaryllis amabat.
Addam cerea pruna: & honos erit huic quoque pomo.
Et vos, ô lauri, carpam, & te, proxima myrte,
Sic positæ quoniam suaves miscetis odores.
Rusticus es, Corydon: nec munera curat Alexis:
Nec si muneribus certes, concedat Iolas.
Eheu, quid volui misero mihi! floribus Austrum
Perditus, & liquidis immisi fontibus apros.
Quem fugis, ab demens! habitarunt Dii quoque silvas,
Dardaniusque Paris. Pallas, quas condidit arces,
Ipsa colat: nobis placeant ante omnia silvæ.
Torva læna lupum sequitur, lupus ipse capellam:
Florentem Cythisum sequitur lasciva capella:
Te Corydon, O Alexi: trahit sua quemque voluptas.*
ECL. ii. ver. 45.

Thus English'd by the Noble Earl before
mentioned

Oh beauteous charming Boy! come here and see;
Baskets of Flow'rs, the Nymphs cull out for thee:
Lillies and pale-look'd *Violets* they bring,
And the fair *Naiads* crop the early Spring.
The fragrant Sweets with artful Hands they join,
Where *Poppy-Heads* and *Daffodils* combine.

Cassia and *Dill* are added to the Store,
 With *Cowslips*, *Marigolds*, and many more
 In order wove, a Garland to compleat,
 Adorn'd with every Flower and every Sweet.
 But *Nectarines* and *Peaches* I admire,
 And *Chestnuts* which my *Amaryllis* does desire:
 Plumbs too, and Apples do deserve our praise,
 And you, O *Bays* and *Myrtles*, crown our lays,
 Because you gratefully your Odours raise.
 But *Corydon's* a Swain, his Bribe's too poor,
Alexis scorns his Gifts, his Master can give more,
 Thou striv'st in vain to offer all thy Store.
 Alas! what wou'd'st thou do? leave all astray,
 Let Storms thy Garden spoil, or Flowers decay;
 Or in thy Meadows let the savage Boar
 Pollute thy Springs, and thy tender Plants devour.
 What dost thou fly? the Gods themselves do dwell
 In Shades, and *Paris'* Court was but a Cell.
 Let *Pallas* live in Cities she has made,
 We are far happier in the sylvan Shade.
 The Lyon hunts the Wolf, the Wolf the Kid,
 The wanton Goat on *Trefoyle* loves to feed:
 So *Corydon Alexis* does pursue,
 And ev'ry Man the Pleasure in his View.

I shall draw towards a Conclusion of what I
 have to take from *Virgil*, with what he says (in
 his tenth Pastoral where he comforts *Gallus* for
 the Loss of his Mistress) of its great uses to
 Bees, for whose sake the *Cythifus* was, by the An-
 cients, always planted in or near their Apiaries,
 the Flower of it being sweet, and affording a
 fine Liquid to load themselves with; even in
 the depth of Winter.

Ecquis erit modus! inquit: amor non talia curat.
Nec lacrymis crudelis amor, nec gramina rivis,
Nec Cytiso saturantur apes, nec fronde capellæ.

I have

I have made bold to alter a few Words in the Translation to make it plain, otherwise it is as that Noble Lord has rendered it.

There is no Medium 'twixt Extreame, says he,
 Love values nothing but its Liberty ;
 So barbarous! humane Tears can never please,
 No more than *Cythisus* can surfeit Bees.
 Or Floods can satisfy the grassy Field ;
 Or wanton Goats with verdant Leaves be fill'd.

I shall borrow but one Passage more from *Virgil*, which is a fuller Demonstration of the great esteem that Poet, and all the Antient *Romans*, had for the *Cythisus* ; after he had spoken of the great Uses of Sheep, Goats, and other Cattle for Cloathing, &c. commends it for the encrease of Milk, Cheese, &c. in the strongest Terms. Thus

*At cui lactis amor, Cytisum, lotosque frequentes
 Ipse manu, salsaque ferat præsepibus herbas.
 Hinc & amant fluvios magis, & magis ubera tendunt,
 Et salis occultum referunt in lacte saporem.
 Multi jam excretos prohibent à matribus hædos,
 Primaque ferratis præfigunt ora capistris.
 Quod surgente die mulserè, horisque diurnis ;
 Nocte premunt : quod jam tenebris & sole cadente,
 Sub lucem exportant calathis (adit oppida pastor,)
 Aut parco sale contingunt, hyemique reponunt.*

GEOR. iii. v. 394.

The Reader will I hope excuse me if I endeavour to alter two or three of the first Lines which my Lord *Lauderdale* gives in his translation, being, in my humble Opinion, very wide of the original Meaning of *Virgil* ; for the *Lotus* which is

by his Lordship translated *Broom*, is by no means so, but an *Egyptian* Legume, or Herb, of which as *Pliny* says their Shepherds not only made Bread, but as *Homer*, both in his *Iliad*, and *Odyssey* says, was plac'd in the Number of those Herbs in which the Gods themselves delighted. Besides, his Lordship's Version, in other Particulars, in the beginning of this Sentence is but indifferently done to what the later part is: But to the Translation;

If to the Love of Milk your Fancies lead,
Your Flocks with *Trefoyle* and the *Lotus* feed,
Give them salt Grass and that their Udders fills,
From Salt to Milk a savoury Taste distils;
The Mothers Teats to stronger Kids deny,
And Iron Muzzles round their Noses tye:
Of Mornings Milk at Night make Cheese and
Whey,
Your evening's Milk next Morn to town convey
In wooden Pails, or if you still have more,
Make salted Cheeses for your Winter Store.

This Account of *Virgil's*, relating to the Uses of the *Cythifus* to milch Beasts, is also hinted at by *Pliny*, when he is giving an Account of its being translated from the *Cyclades* to *Greece*; his Words are these, *mox in urbes Græcas magno casei procul proventu; quod maxime miror rarum esse in Italia.* *Plin. Nat. Hist. lib. xiii. cap. xxiii.*

Thus far from *Virgil*, concerning the great Uses of the *Cythifus*; but much more to the Purpose follows from *Columella* who wrote after him, when *Claudius* was Emperor of *Rome*; permit me to give it in his own Words, least being fond of my Subject I should be thought guilty of raising its Character above the real Value: *Omni generi pecudum*

pecudum utilissimus est, quod ex eo cito pinguescit, & lactis plurimum præbet ovibus, tum etiam quod octo mensibus viridi eo pabulo uti & posteo arido possit; præterea in quolibet agro, quamvis macerrimo celeriter comprehendit, omnem injuriam sine noxa patitur. Columell. de Re rustica, lib. v. cap. xi.

But to this Purpose also *Pliny* is much more express, when he says, ——— *non ex alio pabulo lactis major copia aut melior, super omnia pecorum medicina, a morbis omni usu præstante.* And in the same Chapter he has given so high a Commendation of it, that I think I can't end this part of my Account better than with his expressions on it: *Non æstuum, non frigorum, non grandinum, aut nivis injuriam expavescit. Vid. Plin. Nat. Hist. lib. xiii. cap. xxiii.* And besides what *Columella* and *Virgil* have wrote of the Uses of it to Bees, *Pliny* says from *Aristomachus* and others, *Apes quoque nunquam defore Cythiso pabulo contingente.*

This Plant which I have so long been representing to your Lordship, may be propagated either by the Seed or by Cuttings, the particular Methods of which I shall give at the close of this Account, as Cabbage Seeds, or any Plant of that kind, are planted out at a Foot and a half asunder, as says *Varro* (s); or at four, as says *Columella* (t), in the manner Oziers are. But as to the Propagation of it by Seed, there has been so little ever known to be sav'd in *England*, the flowering of it being in the middle of Winter, that I despair of ever seeing that; altho' as to the Green, it lives

(s) *Cythifus* feritur in terra bene subacta, tanquam semen brassicæ, inde differtur, & in sesquipedem ponitur, aut etiam duriore virgulæ deplantantur, & ita pangitur in ferendo. *Varro de Re rustica. lib. i. cap. xliii.*

(t) Plantas deinde vere disponito, ut inter se quoquo versus quatuor pedum spatio distent. *Columel. de Arboribus, cap. xxviii.*

and prospers, and is all that Time a most exceeding beautiful Plant, which ramifies or grows into an abundance of Shoots; its Propagation may in a few Years be made with great ease, and in great abundance, I having myself seen Cuttings enough on one Plant to stock a Quarter of an Acre of Ground at least, because every Bit of two or three Inches long will grow, and if planted and moderately watered in the Spring, or any of the Summer Months, will root with Pleasure, and if set at three Foot asunder about Four thousand eight hundred will be more than sufficient for an Acre, which may be fed the first or second Year, if done with Care, concerning which more will be set down in the Conclusion of this Discourse, nothing being able to hurt it, if what *Pliny* observes in the Conclusion of his *xxiii chapter of lib. xiii. of the Cytbifus* be right, (where though in general he advises the mowing or reaping of it as soon as it has done flowering, which is at or about the Vernal Æquinox, which happens with them some time in *February*) yet in giving Account of its Hardiness, and that according to *Hyginus*, no hacking, chopping, cutting, or any other ill Usage could entirely kill it, on Account of the Ungratefulness of the Wood, it may not seem unreasonable that it may be cut at any Time of the Year, even in the greatest Heats of Summer, as well as the Colds of Winter, and I am confirm'd in this Opinion, not only because it is of a dry Nature, and not subject to bleed as most other Grasses or Fodders are, but will bear to be well hack'd and chopt to keep it within compass, both within and without door, and I may add at all times of the Year; and tho' the Boughs or Branches may be a little sticky,
if

if suffered to grow too long, yet in an open and free Air, there are such a Number of small Leaves that encompass the Stem, that there is sufficient picking for Cattle, much better than can be had on any of the *Coluteas* or *Bastard Senas*, or any other Plant or Herb of those kinds. And I am the more confirm'd in the Belief of the Hardiness of this Plant, from an Account that I have lately receiv'd from a Gentleman newly come from *France*, who has seen it growing and blowing in open Borders in the Gardens at *Chantilly*, where it flowers in a very agreeable manner all Winter.

Pliny directs the sowing the Seed in the Spring as you do that of the Leek, or by the Stalk in Autumn before the short Days approach; but from the experience I have had of it, I take the putting in of the Cuttings or tender Stalks about the later end of *March* or beginning of *April*, to be best, and being well watered 15 or 16 Days at their first planting, will, in case no Rains fall at that Season be sufficiently rooted to remove into the open Field the first Rains which fall in *September*.

Several Observations about the sowing and planting the Cythifus.

The same Author says, that when Cattle eat it dry, being clear'd of Chaff or Dust, it should be immerst'd in Water; and given sparingly, because its Strength is then the greater; that a stone, or 15 or 16 lb weight is sufficient for a Bait for a Horse, (I suppose he means for a Day and a Night) 20 lb for an Ox, and so on in Proportion to the Strength of the Beast to which you give it; and that if you would cut it for Hay (tho' I think 'tis best to use it green the best part of the Winter, it continuing eight or ten Months green, if not cut down too late) it may be

be mow'd about the Month of *September*, when the (Seed as he says, certainly by Mistake, for it is the) Flower begins to swell; for if *Pliny* and his Interpreters, and the Observations I have always made of it be true, the *Cythifus* flowers all the Winter, and feeds in Spring; but it may feed twice in other Countries for ought I know, as several other things do.

Pliny says 'tis an excellent Fodder for the making of Cheese, and *Columella* and *Pliny* both, that if decocted in Wine, and given to Nurses who are in danger of being dry, it will cause them to give Milk well, and make their Infants the healthier and stronger.

*Of the Method
proper for raise-
ing the Cythifus
in Britain.*

Having thus given your Lordship a full Account of this Plant, or rather Fodder, which was held in so great esteem amongst the ancient *Romans*, its Uses and several of the Methods which the Ancients took in propogating it, I beg leave to conclude, by laying down the best Rules I can for the introducing it into the *British* Husbandry, the Ground allotted for it being that which is heathy, barren and dry.

The first thing to be done is the paring up of the Sward or rough Coat of Heath, &c. and throwing it into Heaps, and burning it in the same manner as is practised in common Burn-bakeing, adding a Peck or half a Bushel of Lime to every Hill, after which let the Ground be plowed as usual, and you'll have a Fund of Mold proper to plant your Stocks in Autumn.

If it should be ask'd how it came to pass that I can tell that the *Cythifus*, I have been so long describing, will grow on poor heathy Land, when there has been few or no experiments ever made of it in *England*, and that I cannot possibly have

have any other warrant for it than the Authority of the Ancients? I answer, that I have observed for these twenty Years last past, that it would grow in the poorest and most worn out emaciated Soil that was, provided they had but Air and were not too much water'd, both which would make them look yellow, and cause the Leaves to fall off, and when we us'd to new Case them, which was generally done once in three or four Years, we put the poorest Mold we could into their new Cases, in order to prevent their growing too fast, and filling up the Allies too much, and from thence I always concluded, that it was a Plant which was chiefly sustained by Air, and that the Reason of its being so hardy was owing to a Dryness which was its natural Property, and that its not being a succulent Plant, as most other Grasses are, was the Reason why it would resist the severity of Wet and Cold better than those Plants would.

According to the Ancients, the time of Sowing the *Cythisus* is either about the Ides of *October*, or in the Spring, when the Earth is well till'd, and the Ridges made fine, in the nature of a Garden Bed, as *Bazill* or any other Seed is sow'd; but I would rather in this Climate, advise the sowing the Seed in the Spring, than at any other Time, that the Plants may grow up and be strong enough to resist the Frosts the next Winter, when as yet they may be but tender; and then in the Autumn or Spring following, they may be set out as in other cases, in the open Fields, or on Hills denshir'd and prepared, as before directed.

*Of the Time
and Method of
Sowing, Plan-
ting, &c.*

Pliny

Pliny says that it is rais'd with very little Cost, by sowing it amongst Barley, or any other Spring Crop from Seed, or by the Sets or Stalks before Rains in Autumn.

But in case Seed cannot be had, which 'tis much to be fear'd it cannot as yet, it may (as *Columella, lib. v. cap. xi.* advises) be planted out by Cuttings in the beginning of *September*, in Beds prepared as before; but here again I think it more adviseable to begin this bedding of the Cuttings, the later end of *March* or beginning of *April*, at about five or six Inches asunder, as our Nursery-Men do their Elms out of the Woods; for by that means the Plants will be so well rooted, the top Green being cut off when planted out, as to live without watering the next Year in the most open Field, or Hill; and this transplantation of the Plants from the Nursery-Bed into the open Air, is certainly most proper the later end of *August* or beginning of *September*, for the Reasons before given. If this Work be deferred till Spring, you might the better sow some Crops of Onions, Dwarf-Pease, Turneps, Spring-Tares, or other Summer Plants which would not be apt to run up tall, and shade the Plant too much, as those do who plant Liquorice and other things of that kind at *Pomfret* and other Places; notwithstanding which, as the *Cythifus* Plants are to be set in Rows as Willows are, if you can sow the Interspaces with any thing at that Season, or in other Words, that it will not answer the Expence you are at, you may defer it till the Spring following, only new houghing, hacking, or plowing the Ground again at that Time; and then you may sow the Seed beforementioned, as well as if it were newly broke up; you may also sow
Spurry

Spurry Seed, Buck Wheat, or the like, which delight in barren sandy Land.

But before I had given Directions about the Cropping the Ground between the Roots, I should have directed that at the planting of the *Cythisus* Plants, the Rows should be set out with a Line as you do Hop-Hills, that these Rows should be but three Foot apart, whereas Hops are generally five or six, and having taken out the barren Mold a Foot, or a Foot and a half Deep, and about the same Diameter, fill up the Hole again with Burnbak'd and other Earth and Lime mix'd, for although it be truly asserted, that the *Cythisus* will grow on the poorest Lands when they are rooted, yet while they are young, they ought to have a little more Care taken of them.

It will as yet be impossible for me to give an exact Account of the Charges which attend, or of the Profits which may arise, from this useful Plant, though as to the first I believe I can come pretty near it.

	l.	s.	d.
The Charge of paring up, and burning the Turf at <i>per Acre</i> — —	1	00	0
For 32 Bushel of Lime, to mix amongst the Hills, at 6 <i>d.</i> <i>per</i> Bushel	0	16	0
For 48 Hundred of Bedded Plants, at 2 <i>s.</i> <i>per</i> Hundred when plenty	4	16	0
Plowing and Planting of the same	0	10	0
Digging the 4800 Holes, filling them in with burnbakt and other Earth, Lime, &c. and putting in the Plant at one Farthing each — — — —	5	00	0
The Rent and Tithe of the Ground, — — — — —	0	8	0
In all	12	10	0

The small things planted or sown between the Rows, be they only common Grass-Seeds, will pay for the Tillage that is required upon it every Year, and as it is a Plant that will, in all probability, last many Years, I know of none that is so great an Improvement in Land where nothing else will thrive.

Of the great Uses of the Cytisus to Ewes and Lambs in Winter.

One Use in particular I take to be very extraordinary for Ewes and Lambs, that in the Winter or Spring Months, when there is no Grass to be found, if it is not cut too close in Autumn, there will be exceeding good Fodder, one Foot high at least, to be come at easily, tho' the Snows should fall amongst them, as it happen'd this Year, full of fine small green Leaves, which by the very Taste of them, any one may discover, are of a healing, fattening Quality, and will by no means be subject to the Rot, as many other Foods in those Months will, nor is there any time of the Year but this Food will be useful; how useful then it will be to hous'd Lambs, I need not add.

Columella, and other Authors tell us, that the *Cytisus* does not come to Perfection, nor fit to cut for the use of Cattle, till it has been growing in the Ground three Years; but for my part, from the Experience I have had of it, I cannot see why a few Ewes and Lambs may not be put into it the first and second; and why the Stalks of it may not be mow'd or cut close to the Ground every Spring.

Of the durability of the Cytisus in our open free Air.

It is almost as certain as any thing of this Nature can be, that by the luxuriance of its growth in an open free Air, it may be cut three or four times in the Summer at least, I am sure the oftener the tenderer; the

the Clover, when ripe, produces Stalks as hard as this does, and is by no means so well cover'd with Leaves.

And now, my Lord, I doubt I shall appear to those (who look with an Eye of Ridicule on all new Improvements) to have employ'd my Time as idly as those who have so often been said to have taken a great deal of Pains, in a fruitless pursuit after the so much talk'd of grand Arcanum or Philosopher's Stone, with which whatsoever was touch'd, should be immediately turned into Gold; nor can I, at the first Appearing of this, expect any great Quarter from several who are really Lovers of, and Persons of considerable understanding in, Husbandry; nor can the Opinion of so considerable a Body of Gardeners, as I have before referred to, but be of great Weight against me, but yet Truth and Time will conquer the greatest Obstacles that can happen.

Certain it is, from Facts too plain to be deny'd, and which are in a great measure own'd by some of the Opposers of the Success of this Fodder, that it is much more useful than any other Fodders, being to be eat green several Months in the Year more than *Clover*, *St Foyne* or any other Fodder, even tho' it should be supposed that some severe Winters will cut it off quite down to the Ground; the *St Foyne*, *Clover*, *fine Trefoyle*, &c. would always we know, if not mow'd, of itself naturally die down to the Ground, at or about *Michaelmas*; but that this will not, I can not only aver, but bring very good Proof, that it will remain whole and intire, full eight or ten Inches, or a Foot or more high, from *Michaelmas* to *January* or *Feburary*, and be the best Fodder that grows at that, or any other time of the Year, for all sorts of

Cattle, and being thus tall in its Growth and daily Food for them, will not only save Hay for worser Weather, but will put them so forward, that a little dry Hay of the *St Foyne*, *Lucerne*, or this, when moistned with Water, will make them entirely fat, and in good liking.

And tho' I bear a great deal of Respect to any Body that endeavours to do something in the way of Husbandry and Gardening, especially to that Body of Gardeners; yet I cannot but say that I think (I speak with humble Submission to better Judgment) that they have been too quick in passing Judgment, or rather a definitive Sentence, on a Plant of which they have had so little Experience as to its Uses in Husbandry; for had those Plants they mention, been often cut close to the Ground, and young Shoots sprung up from thence, they would have taken stronger Root, and have been more able to defend themselves from the Violence of the Weather, and by this means they need not have complain'd that the *Cytbifus* was a Shrub, *which did not afford Shoots of any considerable Length, nor would it bear cutting more than once a Year, much less that none but the extrem parts of the Shrub are fit to be given to Cattle;* when it will be evident enough to any Person, who will give himself the least Trouble of trying it, that the more you cut it, the faster and thicker it will grow, as all other Plants of the vimineous Race will, so that by this and all the other Circumstances that I can collect; this noble Plant is by them unwarily condemn'd before they have made those Trials which were necessary to lead them into a true Knowledge of it. Nothing certainly can be tenderer, or eat with more Pleasure by Cattle, than the young Branches or Shoots of the *Cytbifus*; and

one

one great Reason why I believe it is, when originally raised from Seeds or Cuttings in the open Air, a much hardier Plant than most People imagine, is, that it is a dry, not a succulent Plant, and therefore not so subject to rot as Pease, Beans, and other Legumes in the Winter; and as most Plants owe their being, or I would rather say their thriving well, to some one or other of the three great Co-efficients of Nature, Air, Earth, or Water, more than to another; so I judge the *Cythisus* owes its flourishing and Encrease more to Air than any thing else, and when plac'd upon high airy open Hills, in any dry, barren, soft, sandy Soil, will prosper well, notwithstanding the Severity of the Weather which affects, and often spoils other Plants which are more succulent and juicy.

And indeed, my Lord, after very mature and serious Thoughts on it, the only Objection that can be brought against it, is that it is a very green, tender, good Fodder, even at worst fit to eat full four Months longer than any other sort of Fodder, and supposing the severe Weather, which sometimes happens in the Months of *January* and *February*, should cut it so close to the Ground that it will not rise again till *May*, yet it will be a very hard Sentence against it, to affirm, that the *Cythisus* is not a proper Food for Cattle, because it lasts green so much longer than other Fodders, or that the Branches are too hard to eat, when it has not perhaps been ever kept cut by any Body, to have those which are tender and fit for that purpose.

'Twill be a great Pleasure to me, if my Endeavours prove satisfactory to your Lordship, and useful to the rest of the World; and I must own there are few things will give me greater Satisfaction, than to see thereby those Hundreds,
I may

I may add Thousands, of heathy Lands in the Counties of *Cumberland, Westmoreland, Durham,* and *Northumberland,* almost from *Lancaster* to *Berwick,* as well as those which lie in *Surrey, Berks, Hants, &c.* brought into Tillage, for the Advancement of those Estates, and the Employment and feeding the Poor, at a Time when tho' every thing else is plenty, yet Meat is almost out of their Reach. These are the utmost of my Desires! these the greatest Laurels I grasp after: But how far my Endeavours will contribute to that happy desirable End, must be submitted to Time and Experience; all that I can say in my own Justification is, That I have asserted nothing but what is agreeable to Fact, and the Observations I have long made of it. The farther Trial of it can by no means be either expensive or hazardous, the Loss (if I may so call it) of a Quarter of an Acre of Land, and the Improvement and Planting of it can't cost above 3*l.* or 4*l.* at most, which will fully demonstrate the Truth and Success of this useful Fodder.

And with this, my Lord, I beg leave to conclude, begging your Lordship's Pardon only whilst I do myself the Additional Honour of subscribing myself,

My LORD,

Your Lordship's

most Obliged,

Humble Servant,

STEPHEN SWITZER.

POSTSCRIPT.

Since I finish'd the the foregoing Letter, I have, by means of my Ingenious and Worthy Friend Sir *John Dalrymple*, procured the following Letter, with a Specimen of Mr *Heron's Cythifus*; I shall remark further, that it is by no means a *Trefoil*, nor do I think it a *Colutea*, but rather of the Broom-kind, and Sir *John* himself thinks it is no *Cythifus*; whatever it be, if it be no *Cythifus*, it may be an useful Plant; and as it prospers well, and will endure any Weather so far Northward, may well deserve the Care and Attention of all industrious Husbandmen.

Bargaly,

Feb. 5. 1731.

S I R,

I Was favoured with your's which was very acceptable, and would most willingly entertain a Correspondence with any Gentleman of your Taste and Capacity. As for the Plant you write of; I have often regretted that any thing so useful to Mankind, should be so much neglected. I have for many Years all the Shrubs I could have access to, that will subsist in the open Air, in our British Climate. And since I have read of the *Cytifus* to be of so great Advantage in many respects, I was at some pains to penetrate into the Qualities of such Shrubs, as I could comprehend would come nearest the Nature of that Plant, and find that the Small Sena, commonly called the Bastard Sena, answers in every particular more than any other we have, or at least that I have seen. In the first place, in the Taste of the Leaf and Shot, it is full as sweet as the red Dutch Clover or St Foyne. 2dly. It grows not in height above a Yard, or something more, when it is not disturbed in it's Growth. 3dly. It is a quick Runner and great Increaser,

Increaser, and is most acceptable in the Summer time to all sorts of cattle, even Hares and Rabbits feed upon it with much Greediness. 4thly. It flowers twice or thrice a year, and hath been in flower with me all this Winter. 5thly. 'Tis a Plant that takes in most soils, but best in the driest, I have not made trial of it in Clayey Grounds, but in hazel and loamy Earths exceedingly. An Acre of Ground will be over-run with it in three Years. The small suckers planted at three Foot distance, will mow thrice a Year, when once fully thickened, and it must not be suffered to grow in height above a foot or sixteen Inches, and takes very well in Land that three Crops of Grain have been taken off before. I have only made trial of it these four or five Years past, and am perswaded that it will answer all the Qualities of that Plant Galen describes, and I am apt to believe, that a Plat of Ground, right planted and managed, may continue without Removal sixty Years; for whenever the Suckers increase, they choak up all our Weeds or Grass by shading the Ground so much, and when suffer'd to flower in Gardens without being cut, is a beautiful Plant upon Walls or mix'd in Hedge-Rows; and when it is suffered to run to seed, it hath cods like the small Vetch, or shrub Trefoil, which may be taken for Increase. I have sent you a top or two of it, herein inclosed, with fresh Leaves upon it; so that I apprehend this Plant in Italy, or those hot Countries, does not lose the leaf all the Winter. This is all I have hitherto had Experience of concerning it, and I wish that such as have a Love for their Country may be at more pains to improve so useful a Plant as it may prove to be if rightly managed. I am with all due Respect, upon all Occasions,

S I R,

Your most Humble Servant,

A. HERON.



Some Farther

IMPROVEMENTS

OF THE

LUCERNE;

Tending to demonstrate, that the Reason of
it's not taking Effect in some few Places, has
been owing to the Unskilfulness or Neglect of
those who have undertaken to manage it.



SOME Thousands of the Pam-
phlet some time since publish'd
by me for the Improvement of
Land by Grass-Seeds, Burnt
Clay, &c. being sold, and pro-
bably may never be reprinted;
I thought proper, for the bene-
fit of those who have bought it, to add some
Observations which have occur'd to myself and
others, on those Subjects; both which Improve-
ments, tho' they have miscarried in some places,
yet the Accounts which I have received, will
I fully

fully demonstrate, that it has been owing to unskilful Management.

It is very certain the *la Lucerne* is one of the best Grass-Seeds that grows, for Horses especially, from whence some Authors call it *Trifolium Caballinum*, Horse Trefoil; others affirm, that Horses, or other Cattle fed with it in any Sickness, will recover and grow fat in a short Time. And if mixt with a good quantity of common Hay, is not surfeiting, nor does it blow up Horses like Clover; whence some affirm, that even running Horses may eat it to Advantage.

Among many Accounts, I shall produce the following being the Substance of two Letters from an eminent Clothier of *Warminster* in *Wilts*, at that time a Stranger to me.

Warminster,

Nov. 30. 1730.

SIR,

BEFORE I had seen your Treatise which directs the Method of raising Italian Brocoli, Cardoon, &c. and in the second Chapter treats of *la Lucerne*, and other Seeds for the Improvement of Land, I had sown a small Quantity of the *Lucerne*, which I had from a Neighbour, who had sown some of it before but without Success. But mine has succeeded so well, that I am determin'd to sow more, and to encourage the Propagation of it; farther than that, I have recommended it to my Friends, several of whom intend to make Trial of it.

As to what I sow'd, I doubt not but you'll be pleas'd with knowing the Methods I took, and the sort of Land I sow'd it in, which is a deep blackish sandy Mold, which has been either garden'd or sown with
Corn,

Corn, beyond the Memory of any one now living; what I sow'd the first Year was about 12 Pole, being but a little, I dug and then trod it, and sow'd the Seed, it was the latter end of April, and the Season being warm and moist it came up in three or four Days and grew very fast; but my Ground being very subject to Weeds, I had it weeded whilst young, I mow'd it three times, the first Year; and the second, which was last Summer, three times, and had a good Feed after it.

Last Spring I sow'd the adjoining Ridge, but the Seed being old, viz. the third Year after my Friend bought it, it came up slow and more sparing; however I cut it twice, and it promises a good Crop another Year.

The second Crop of the second Year was cut about Midsummer; and I guess the two first Crops were in proportion to near four Ton on an Acre, when made into Hay, but the two last were but light: Horses eat it greedily, but there is danger in giving Cows too much; I let a small Parcel of the second Crop stand for seed, but after it was blown the Gods seemed to fall off, so I cut it.

I have observ'd one evil attending mine, which as it may be new to you I will relate; after the first Crop arose a sort of Weed, or rather an Excrecence, which taking its Rise from the stalk, in the form of a red speck or string, then winds itself round the stalk, and from it issues divers other small strings of a reddish colour, and spreads so thick as to cover the Grass and hinder the Growth of it, if it be not taken away in time, and wherever it winds itself round a stalk it certainly kills it, but does not always kill the whole Root. I have observ'd it so often that I am satisfied it takes no Root in the Earth, but is nourished by

40 *Farther Improvements of the Lucerne.*

the stalk, it is much like Beggar-Weed among Vetches ; but as this may be peculiar to my Soil, others may not find the same.

I hope to see you some time in the Spring, when I shall have an opportunity of communicating to you what other Observations I have made on this useful Grass.

Yours, &c.

HENRY WANCEY.

The Observations that I shall make on this Letter are, first concerning it's failing under the Management of this Gentleman's Friend, tho' the Seed was newer by a Year or two than when he sow'd it, and is a full Answer to several People, who when their Crops fail, lay all the Blame on the Seed and the Man who sold it, calling him perhaps Knave, and a great many other Names very injurious, when the Fault has been their own Mismanagement, or that of some negligent Servant to whom the Care of it was committed.

A second Observation I make is, the Produce of Mr *Wancey's Lucerne*, even the first Year, so as to be mow'd three times ; but the second Year is more wonderful still, supposing that he cut off but a Ton a time, each of the last Cuttings, that is 6 Ton on an Acre in the whole ; now as every Ton of *Lucerne*, when made into Hay, may be moderately computed at double the Value of that of common Hay, the intrinsic Value of it, is as 12 to 3, or 4 to 1 ; because it must be very good Land indeed in the Country (where it is not dung'd as they do about *London*, or such as is growing on low marshy

marshy Land) that produces above three Ton on an Acre; so that it can't be thought bad Husbandry in any Gentleman who, after burn-baking, &c. converts some part at least of his Meadow-Lands, into *Lucerne*, especially if he can but throw some Water over it as soon as it is mow'd, Water being, especially in hot Weather, very essential to its growing apace; and this is so well understood in the Fens about *Thorney, Spalding*, and other Places in *Lincoln* and *Cambridge* Shires, that they are now getting into this Husbandry, which must certainly take effect if the Drill and Horsehough Ploughs succeed; the first of which will plant and cover the Seed well, and the second will help to keep the Weeds down whilst the Grass is young and tender, and in danger of being spoil'd; and though the Rows should be three or four Feet asunder the Crop will sufficiently pay the Expence; and the Reason why I would advise the sowing of *Lucerne* on burnbakt Land is, because the burning kills all those Grasses or Weeds which would otherwise injure it, and if the Land be a strong deep Loam, the Owner may very well take two or three Crops of Beans, Pease, *Indian* and common Wheat, or Barley, &c. letting the last Crop be that of Turneps or Buck-Wheat, which will make the Ground very mellow, and then the Owner may lay it down with a Crop of *Lucerne* sown in Drills without Corn; but if the Ground be naturally a soft deep sandy Land, then it is best to burn the Sward, and after strewing the Ashes about, the Land may be plow'd two or three times as you see occasion, and being made very fine, you may drill in the *Lucerne* either with a Line and Hough, as Garden Pease are, or by the new-invented Drill-Plough, which 'tis suppos'd will be by and by
more

42 *Farther Improvements of the Lucerne.*

more common. The Reason why I prescribe the sowing of *Lucerne* in Drills, without any Corn with or before it, is, that Corn is apt to draw the *Lucerne* so tender, that some hard Winters kill it the first Year, it being not so hardy as Clover; besides, the Recompence arising from the sowing of *Lucerne* is so great, that no Farmer need be covetous of sowing it with Corn; it may indeed with Justice be said, that a little Corn may possibly screen the *Lucerne* from the violent Heats of the Summer, if any should happen; yet those happen so seldom, the Wetness of all the Summers that have been within these five or six Years is such, that there is much more occasion to fear Cold than Heat; which is all I shall add at present.





O F T H E
I M P R O V E M E N T S

Lately made by

Burning of CLAY.

THE same Reasons which induced me to give an account of the Progress and Success in the Propagation of the *Lucerne*, induce me to give the most authentick Account I can of that of *Burning of Clay*.

Some Gentlemen lately come from *North Britain*, assure me that great Improvements have been made there, especially on the Lands of that Worthy Gentleman mentioned in the *Compendious Method*, Part whereof were improved by Dung, Part by Lime, and Part by *Burnt Clay*; and the Clay was by much the best of all; and the only Objection to it is, that it won't answer the Expence, and that there is no keeping the Fire in.

The latter I would ask, how it is that the Fire is kept in, in Clamps of Bricks, which are seen to burn many Days successively, only by mixing
of

of small Coal, &c. amongst them, and plaistering the outside of the Clamp with Loam to compress the Heat. To the former I answer, That wherever the *burning of Clay* will not cost above 12 *d.* or 18 *d.* per Load, it can by no means be thought too dear; because it being much better it lasts as long again as Dung or Lime, and is a good Manure, where neither Dung, Lime, or any thing, except Sea-Sand, Sea-Shells, and a few other Manures are to be met with.

The first Account I have received of this Improvement, is from a Relation of my own, who seems to fall in with the common Opinion concerning all new Improvements; but be it as it will I will relate his Letter.

Winton, Dec. 28. 1730.

S I R,

According to your Request, I took a Tour to Lanston, and other Places where I heard they had been trying to burn Clay; some whereof had succeeded very well in the Operation, and others not so well; the Person at the Place abovenamed is both Bailiff and Gardener, who says he can burn it very well, and that it is certainly a very great Improvement on cold Lands; but that the Expence of burning it is such, that he thought few would pursue it, especially in that country where Fewel was so scarce. I wish I could have sent you a more satisfactory Account; however, as the Dearness of Fewel is not the same in all places, it may not frustrate the Scheme you have so earnestly recommended in other countries, tho' I am afraid it will in this.

I am your Dutiful Kinsman,

T. SWITZER.

The foregoing Letter gave me no small Uneasiness, till I considered that even in that Country, tho' destitute both of Wood and Water, several Materials might, at the proper Season of the Year, be collected to mix with the Clay before burning, as long Wheat-Stubble, of which every Farmer has a good deal, the rakings of long rough Grass and Leaves in Coppices; Brambles, Briars, and other trashy Wood; Fearn, Whins, or Furzes, small Baviny Faggots, with which they burn their Lime and dry their Malt in that Country, which will do the Business; but wherever there can be got any reasonable Quantity of Peat, the Ashes of which are a proper Improvement, or where there is Slick, or small Coal, to be had, the burning of Clay will succeed, as appears by the following Letters.

The Second is from my ingenious Friend Mr *Thomas Knowlton*, with whom I constantly advise concerning Improvements in Husbandry and Gardening, the Purport of whose Letter (relating to the *CYTHISUS* and burning of Clay) take as follows.

Lanesborough,

Dec. 18. 1730.

My good Friend,

I Received both your Letters, and should have answered them much sooner but that I had not seen or heard of Mr Cowell's Book, but from your self; I have since got it, but shall say nothing as to the general turn of the book, being unwilling to pass Reflections on any thing which has the least Tendency to Improvements, tho' I can by no means think that the *Cythifus* and *Bastard Sena* are the same Plants; I have consulted many Authors about it, but cannot form any Judgment from them of that about which

you wrote to me, so wait the appearance of your Dissertation.

Your Method of burning of Clay Hills, I shall this next summer pursue with Vigour, having finish'd a great deal of other business which has hitherto obstructed it; and this I am encouraged to, by the success of a Friend of mine, who from your Directions has burnt about 300 Acres of Land, (chiefly Ant-Hills) which has greatly improv'd his Estate, and we of this Country are much beholden to you for so useful an Improvement.

As your Endeavours seem calculated entirely for the publick Good, without any mixture of trifling indifferent things, you may always depend on my good Wishes for your success, and of any assistance that lies in the power of

Sir, Yours, &c.

THO. KNOWLTON.

The last is from a worthy Member * of the present Honourable House of Commons, whose Words amongst others are to the following Purpose.

Burthwayte near Wakefield,
Mr Switzer, Dec. 8. 1731.

I Received all your Letters, and am obliged to you for the pains you have taken in the affair I recommended to your charge; and shall willingly accept of the person you have recommended to my service;

* Peter Bold, Esq; Member of Parliament for Wiggan in Lancashire.

I can say nothing of the effect which burnt Clay has had in this County, when laid on the Ground, that Improvement being of so late a date that it can't be yet discovered; but the burning it goes on very successfully, a Gentleman of my Acquaintance having burnt a large quantity, for less than 8 d. a Load, which is much cheaper than your computation was, he mixes Slick (which I take to be the Dust of Coal, which is very plenty in the West and North Ridings of Yorkshire) amongst his Clay, and says he can burn what Quantity he pleases, provided the Weather be fair that his servants can attend the Heap.

I hope to be in Town soon, and may perhaps give you a farther Account; in the mean time I am

Your assured Friend, &c.

P. BOLD.





A N
A C C O U N T
 O F
S E E D S :

With the Consequences which attend the
 Good or Bad Management of them.



SEEDS of all Sorts (and consequently the Sellers thereof) are subject to so many Calamities and Inconveniencies, both in the sowing, felling, buying, and sowing, (some accidental and some natural) that my Reader will not, I humbly hope, be displeas'd if I set this Affair, as well as I can, in the most genuine Light, with such Directions as shall be judg'd most proper for the avoiding these Misfortunes, as far at least as human Foresight can prevent ; for whatever some Persons may think it cannot but be a matter of great Concern to every honest Man that is concern'd in the Seed or *Nursery* Trade, to find that by any Means (even tho' it be not his
 own

own fault) either his Seeds or Trees miscarry, or prove naught. And in this Respect, if a Man means well, he may justly be engaged in one of the most unhappy, tho' most useful Scenes of Life, and the Reasons which I give for it are these which follow.

First, The Badness of some Years is such, that many sorts of Seeds do not ripen well, and then the Seeds in the top Husks, (as in many Grass-Seeds as well as those growing in the Garden) are small, and not at their full Perfection, and then the Seedsman is immediately blam'd, and perhaps stigmatiz'd with such names as he least deserves.

A second Reason is, that those whose Business it is to save Seeds, are not so careful as they ought; and if they are in their own Nature hot, such as Onions, and the like, if put up into too thick Heaps, they heat and the Vegetative Property soon spoils, tho' at the same time the Seed will look bright and well, and the Seedsman comes in for his share of Reproach, tho' this evil cannot be foreseen till too late.

To the two Reasons before-going, may well be added a third, and that is, some Seeds which are imported from abroad, either by the length of their Passage, or the Perfidiousness of those who sell them, are spoil'd and good for nothing; and this often happens to private Gentlemen, who have them from abroad for their own use, as well as Traders; but even here again the Seller, tho' he never saw the saving of them, nor is it possible by the sight of them, to know the good Seed from the bad, either as to their goodness or their kinds, yet he is peremptorily blamed as a Knave; and tho' this is not common to Persons of Understanding or Judgment, yet it too often happens to the fair
Trader,

Trader, who certainly if he has any Regard for himself, would wish it were otherwise. And this Complaint affects him in Seeds sav'd in his own Country, if he be not by whilst it is doing.

A fourth Reason for the Miscarriage of Crops, both in Husbandry and Gardening, is the Negligence or Unskillfullness, of those to whose Management those first Rudiments are committed; for either their Ground (if it be wet and stiff) is not well fallow'd and trench'd, or else the Seed is sown at a wrong time, too soon or perhaps too late; and tho', added to all, it is true that the Spring Seasons of this Climate are so uncertain, that even the most sagacious understanding Person may err in some of these Extreams, on which Account many very honest and laborious Gardeners and Farmers, about the *Neat Houses*, and in the Fields at and about *Vaux-Hall* and *Battersea*, notwithstanding all their Care, are often obliged to crop their Grounds three or four times; yet when the like Case happens to some hot headed inconsiderate Person, then the Seedsman must come in for a very large share of his Noise and Nonsense, tho' not at all concern'd in the ill Effects thereof.

I wish there was not too much Reason to add a fifth Cause of the Unhappiness that the Seedsmen lie under, from the Unwillingness as well as ill Conduct of some of these Husbandmen and Gardeners who are not in the Interest of those Seedsmen, and who indeed hate that their Masters should purchase their own Goods, because they think it an Intrusion into their Province, and perhaps may debar them of some Perquisites they propose to themselves. An Instance of this kind I remember happened the last Summer; when a Servant in this way to a Gentlemen, not imagining he should be detected in it, assured his

his Master that the Cauliflower Seed he had from such a one was not good, when upon a Perusal of the Account, that Person very luckily had not sold it the Gentleman, but was of the Gardener's own procuring. But it very often happens, that the good Seeds are either changed or spoil'd, that the Odium may be cast on the Seller.

It will be impossible, without great Circumspection and Attention, in any Master to remedy all these Inconveniencies, some of them he may, by bringing his Ground into good Tillage, by Winter fallowing, trenching, &c. and because most Grounds which are stiffish, strong, and rich, are subject to Weeds, Worms, Grubs, Snails, and other Vermin, many of which are imperceptible without the help of a Microscope; it would be well for him to dress his Land with Lime, Soot, or any other Manure of a hot biting Quality, before he sows his Seeds, about some two or three Months, for that will destroy those infectious Animals that spoil the sprouting tender Seeds, and make the Ground mellow; and the Reason for the sowing of these things so long before is, that the Fire thereof may be so abated as that it may not burn up the tender sprouting Seeds: But if it be Ground wherein Artichoaks, Asparagus, Beans, Pease, or Kitchen Seeds and Fruit-Trees are planted or sown, then you may defer the laying any of these Manures upon them, 'till they are just coming up; but then that must be done with Judgment, for I have known some young unrooted Fruit-Trees burnt up with them, and those Helps, except it be to Vines, and other things which draw up vast Quantities of Nourishment, ought to be chiefly to old decaying
Trees,

Trees, and not to those which are in Youth and Vigour.

If rainy Weather should not immediately follow after the sowing of small Seeds, especially in the Garden, the Use of the Water-Cart, or Water-Barrow and Pot, is to be recommended, otherwise all those Seeds which lie near the top of the Ground will sprout out by the mighty Dews, and be destroy'd by the drying parching Winds of the ensuing Day, tho' at that time not visible to common Observation; and here the Seller also lies under the lash.

To conclude, tho' I can't take upon me to justify all who follow the Employment I have been mentioning, or say that some of them do not knowingly and willfully sell those Commodities that they are sure will not grow; yet I can solemnly declare, that I never directly nor indirectly us'd that Practice, *i. e.* in the buying and selling that which I certainly knew was not good; on which Account I have lost the taking of several Sums of Money. Nor am I ever sanguine enough to vindicate the best things, on the contrary, wherever I have had the least occasion of distrusting the Goodness of the Commodities. I have told Gentlemen, and have publish'd Advertisements of it, as soon as I have made discovery of it. And the Encouragement, which I have met with, even beyond Expectation, in my present Employment is such, that I can't finish this Introduction without returning Thanks for it, with a Promise that for the future it shall be my endeavour to deserve the favour of my kind Correspondents.



A

CATALOGUE

OF

*Seeds, Fruit and Forest Trees, Shrubs,
Flowers, &c. Sold by S. SWITZER, at
the Flower-Pot, over-against the Court
of Common-Pleas in Westminster Hall;
or at his Garden on Millbank, Westmin-
ster; with the Seasons of Sowing and
Planting, &c.*

CLASS I.

PEASE.

HOTSPUR, beginning or middle of
October and February; and for the
last Crops, the middle of May

Essex Roadings, for a general Crop, the first
sown in February, the last the middle or later
end of May

Dwarf Edgers, once a Month, from February
to the middle or latter end of May

Sickle, in March, or the beginning of April

Spanish Mulatto, ditto

Marrowfat, ditto

Rounceval and Dutch Admiral, ditto

Blue Union Rounceval, ditto

L

Crown

Crown Imperial or Rose, ditto

Dwarf Sugar, ditto

*B E A N S.*Hotspurs of all kinds, middle of October and
February ; for a later Crop, the middle or
later end of May

Portugal and Broad Spanish, ditto

Venetian, ditto

Sandwich, in March or April

Broad Windsor, for a general Crop the begin-
ning of March*K I D N E Y - B E A N S.*Black Carolina Dwarfs, under a slight Cover,
in February

Battersea White Dwarf, ditto

Common White, in dry Weather, in dry rich
Ground, in AprilTurkey, Dutch, or Tall White, in the very
richest Soil, ditto*N. B.* The last grow to a considerable height
in good Land, and bear successively all the
Summer.Dwarf Speckled, exceeding good to pickle, in
April

CLASS

C L A S S II.

*Esulent and Bulbous Roots and Seeds for the Olitory,
or Kitchen-Garden.*

O N I O N S.

Straßburgh, the hardiest and longest Keeper of all, by Seed sown in March or April, or Michaelmas for Spring use.

Welsh Onion, a kind of large Cive or Scallions for Winter and Spring Use, being very hardy ; but rank and strong ; Michaelmas

Spanish, a fine sweet Onion, but not a very hardy long-keeping one ; in March or April

Portugal, ditto

N. B. The Seed from abroad is best, but requires the best Soil, and will degenerate.

L E E K S.

London and French, little different from each other, in March or April

C A R R O T S.

Orange and Red, the first much to be preferr'd, by Seed sown in March or the beginning of April ; and for early in the Spring, about Michaelmas

Parfnip, in March or April

Early white Dutch Turnep, in April or May

Bohemia, Hackney, or Red ditto, in July or August

Yellow ditto from Germany, ditto

Navew, or long French Turnep, in April or May, July, August, &c.

Scorzonera, or Vipers-Grafs, in March or April
 Salfifee, another Species of it, ditto
 Skirret, by either Seed or parting the Roots, in
 March or April
 Shallots, increas'd by parting the Bulbs, in Fe-
 bruary
 Garlick, as the former, in February or March
 Rocambole, or Spanish Garlick, the Allium
 Bulbiferum (bulbous Garlick) of the Latins,
 is increas'd from the Heads or Seed; planted
 or sow'd in February, March, or April

C L A S S III.

*Aromatic and Cooling Herb Seeds and Roots, for the
 Tankard, Kitchen, Distillery, &c.*

Parsley, from Seed sown in March or April
 N. B. It lies long in the Ground.
 Succory, or Wild Endive, from Seed sown in
 August, to tye up against Winter
 Borage, for Cool-Tankards, by Seed sown in
 March or April
 Burnet, ditto
 Clary, for Pancakes, ditto
 Sorrel, for Sauces, several kinds, ditto
 Marygold, for Soupes and Potage, ditto
 Orach, to boil as Spinage, ditto
 Tansey, by parting the Roots or Seed, ditto
 Marsh-Mallows, by Seed sown, ditto
 French Mallows, ditto
 Thyme, several kinds, by Seed or Slips, ditto
 Hyssop, by Seed sown, ditto
 Savory, Summer and Winter, ditto
 Marjoram, Summer and Winter, ditto; the first
 on decay'd Hot-Beds, the last on Cold

Basil,

- Bazil, Portugal, or Bush, for Pots, on decay'd
Hot-Beds, in April
Bazil, broad, for high Sauces, on old Hot-Beds,
ditto
Rosemary, by Seed or Slips set in April
Lavender, ditto
Mint, several kinds, by Slips, in April
N. B. The Pepper-Mint is well worth propa-
gating
Carduus Benedictus, an excellent Emetick, by
Seed, in March or April
Scurvy-grass, ditto
Angelico, ditto
Lovage, ditto
Dill, ditto
Carraway, ditto
Fennel, English, ditto
Finochi, or Italian Fennel, ditto
Anise, ditto
Coriander, ditto
Poppy, ditto
Plantain, ditto
Fœnugreek, ditto
Elecampane, by parting the Roots or Seed, ditto
Pionie, ditto
-

C L A S S . I V .

Raw Salad Seeds and Plants.

Radish, London or short topt, the Roots to be
eat young ; by Seed sown, first, under warm
Walls, or on old Hot-Beds, the beginning of
February ; secondly, in March, in the open
Ground ; in August for a late, and in Septem-
ber for a Winter Crop

Radish,

Radish, Sandwich, to cut in the Seed Leaves, to be sown every three or four Days a little, in proportion to any Family

Radish, Batavia, Bengal, or Turnep, to be sown in the same manner and Seasons as the London The Root of it when small is good in Soupes

Radish, Spanish, Black and White, for Winter Use, March or April

Both these sliced and eat with Vinegar, are good Diuretics

Lettuces, Versailles, Brazil, or white, yellow Cos, on decay'd Hot-Beds in January or February; on the open Ground in March or April; and a little every Month all the Summer; in a Northern Aspect, the last sowing for Winter Plants to be about Michaelmas

— Aleppo, or dark green Cos, ditto

— Silesia, ditto

— Imperial, ditto

N. B. All these ought to be preserv'd under Glasses all the Winter

Lettuces, Black Spanish, Genoa or Capuchin, chiefly in February, March, April and September; will stand in the open Ground without Covers

— Brown Dutch, ditto

— Common Cabbage, ditto

— Marbled, in March or April

The last a beautiful Summer Lettice, but not very hardy

Rocket, Spanish, in Seed Leaves, for small Sallad, every Week in the Year

Hartshorn, ditto

N. B. This last keeps longer in the Seed Leaves than any of the small Sallads

Cresses, Garden, a high Aromatic to be eat in the Seed Leaves, to be sown every three or four Days in the Year

Cerefoil,

- Cerefoil, or Chervil, ditto
Roman Mustard, ditto
Rape, ditto
Tarragon, a fine spicey Fruit, plant by Slips or parted Roots in April
Purflane, Golden and Green, chiefly in April, June or September, but is often sown under Glasses to cut in the small Leaves all the Winter
-

C L A S S V.

Greens for boiling.

- Spinage, round, the best for Summer, from Seed sown in March or April, and July and August
Spinage, Prickly or narrow leaved, the hardiest for Winter, by Seed sown the later end of August and the beginning of September
Beet, Red, for pickling, March or April
— White, to boil in the Spring, &c.
Asparagus, Battersea, Gravesend and Dutch, by Seed or Roots, sown or planted in March or April; the first the cheapest, the last the quickest way
Artichoaks, from the French *Artichiaux*, the red Roman the largest and finest, but the Crown or Green the sweetest and highest Taste, rais'd by Slips, set in March or April
Colly, or, being a Compound of *Caulis* and *Flora*, rather Cauliflower, the two main Crops to be sown in July, August and February, and some few to come in late in May and June

Cabbage,

Cabbage, Ruffia, and Early Dutch, to come in early, by Seed sown in August or September, and January and February

English, Long-sided or Sugar-loav'd Cabbage, and Broad Dutch, sown at ditto

Red Dutch, ditto

N. B. The last is proper to eat, being sliced or cut small, with roasted Chesnuts, as well as pickled, for which it is excellent

Brocoli, or rather Brocauli, an excellent Italian Kele, Cole, Caule or Sprout (the green head not so good) to be sown chiefly in March or April, and about the middle or latter end of June; it may be sown also and rais'd almost every Month in the Year, cutting the long seedy Shoots off, as you think you shall want the tender Shoots

N. B. It is not to be headed towards the cold Weather at or about Christmas, notwithstanding what has been by myself and others said about it

Borecole, or rather Borecaule, or Danish Kele, Cole or Caule, is something hardier than the former, but not so good; to be sown and ordered as Brocoli

Savoy, Green, French, and Yellow Dutch, to be sown as often as the the Brocoli, but not to be headed

Coves Murcianus, or Murcian Kele, Cole or Caule, a white sort of Brocoli, from Murcia in Portugal, and sown and order'd like it.

C L A S S

C L A S S VI.

Plants to be whitened, or blanch'd, and so cut in Soupes or Sallads.

- Sallery, or (from the Turkish Word Celeriac, from which Country it chiefly comes) rather Celeri or Celery; the common sort to be sown on declining Hot-Beds, in January, February or March, to come in one after another for Soupes or raw Sallads
- Celeriac, or Dwarf Turkey Celery, very good, and not so apt to pipe as common; being dwarfish, it has a Club Root, very good in Soupes, but not so large to stew, as
- Celery, Italian, which is very brittle and good, to be sown as the other Celerys are
- Alifander, or Macedonian Parsley, is to be sown in April or May, and whitened in a Hovel. See the fifth Edition of the Method of raising Brocoli, p. 18.
- Spanish Cardoon, April or May; See *Compendious Method of Raising Brocoli*, p. 7.
- Finochi, or Italian Fennel, may be sown or set every Month in the Year, from February or March to October, which last sowing, or rather planting, may be in Earth under a Frame, or in a Green-House; there are two kinds of it, that which comes from Venice is thinner, but not so strong as the Bologna, which is a dwarf kind, but it is difficult to raise the Venetian kind in England, at least at present it appears so.
- Chervil, when sown in July or August on rich Soil, and set out therein, makes an exceeding good Sallad when whitened, as does Parsley, tho' not so good as the former.

CLASS VII.

Fruits rais'd annually in the Kitchen Garden.

MELON

English
 Spanish
 French
 Italian
 Hambourgh
 Water

The early or small kinds sown in January or February, the larger kinds in February or March

The Hambourgh Melon Seed does well in England, as does the French generally.

CUCUMBERS, &c.

The short early
 Long prickly
 Smooth green Turkey
 White ditto
 Calabash
 Guord
 Pumpkin
 Mekin

Are sown at several Seasons in December, January, February and March, as Melons are.

CLASS

C L A S S VIII.

Bulbous and Fibrous rooted Flowers.

Snow-Drops, double and single, of Off-Sets
planted in October

Crocus, several kinds, ditto

Persian Iris, ditto

Anemomy, ditto, or by Seed sown as soon as
taken

N. B. These may also be planted in February,
but then without much watering they will
not blow so well, nor will they increase
much.

Ranuncula, to be planted ordered as the Anemomy,
and so increas'd

Tulips, sometimes by Seed, but generally by
Off-Sets, planted out in October

Junquils, at the same time and manner

Narcissus, several kinds, ditto

Hyacinths, ditto

Bulbous Iris, ditto

Lillies, plain and striped, ditto

Cyclamen, or Sow-Bread, by Seed, &c. in
March

Crown Imperials, striped and plain, by Off-Sets
in October

Guernsey Lillies, by Roots brought from that
Island, planted in April

Tuberoses, by Roots brought every Year from
Italy, planted in February and March

Polyanthos, Primroses, and Auricula's, by Seed
or Off-Sets, in April

Violets and Daisies, double and single, by part-
ing, in April

Hepatica's, increas'd by Roots, ditto

Campanula Pyramydalis, or Bell-flower, for Chimneys, are increas'd by a partition of the Roots made in April and May, (not sooner) except the Season is very mild

Campanula Persifolia, or the peach-leaved Bell-flower, is increas'd as the other, but easier

Carnation, first rais'd from Seed sown in March or April, but propagated chiefly by Layers in July, and transplanted in September, March or April following

Pinks, several double kinds, by Layers as the Carnation, laid down in July; the Mountain Pheasant-ey'd and Indian, by Seed sown in April

C L A S S IX.

Annuals raised by Seed every Year, and dispers'd all over a Garden.

Pinks, the Mountain or single edging one, Pheasant Eye, and Indian, from Seed sown in March or April, as above

Columbine, several Colours, by Seed or Off-sets sown as above

Larkspur, upright, branched and striped, by Seed sown in March or April

Snapdragon, as the former, or by Off-sets transplanted in April

Candytuft for Edging and Bunches of Flowers, ditto

Love lies a bleeding, as the others, and at the same time

Venus-Looking-Glass (in Edging or Branches as the former) makes a beautiful Show, being a lively blue, strip'd, tho' faintly, and is
one

one of the prettiest of all the Annuals that grow without trouble

French Honeyfuckle, by seed sown in March or April

Venus Navelwort, ditto

Chrysanthemum, or Corn Marygold, ditto

Rose Campion, ditto

Noli me tangere, ditto

Valerian, two or three kinds, ditto

Flos Adonis, ditto

Canterbury Bells, (a Campanula) ditto

Poppy, large and dwarf, or (Picotee) by Seed as those before

Hollyhocks, ditto

Lobel's Catchfly, ditto

Dwarf Annual, or Virginia Stock, in Lines or Bunches, ditto

Lupines (large blue, small blue, scarlet, white, yellow, and the Rose kind) by Beans, set two or three in a Bunch, in March or April

Pease, everlasting, sweet scented, as the former

N. B. All these are to be sown in Bunches or Lines, and need no removing nor watering

Stockjulyflowers, white Brompton or red, Twickenham or purple, large Annual, or ten Weeks Stock, a curious late blowing Stock

The striped Stock, &c. in April

N. B. Some of these blow but little till the second Year.

Wallflowers, yellow and bloody, by Seed sown as in the last

N. B. The double kind is generally propagated by Slips and Layers

C L A S S X.

Annual Flowers to be sown on decaying Hot-Beds in March or April, and which are to be planted out in the Parterre or open Garden, in May or June.

Marygolds, African and French

Colutea Barba Jovis, a beautiful Plant, ditto

Palma Christi, ditto

Scabiōsa Africana, ditto

Capficum Indicum, ditto

Perpetual flower, ditto

Balsam, striped and female, ditto

N. B. This last, with some others, will grow in natural Ground, but often come too late.

Pomum Amoris, ditto

Marvel of Peru, ditto

Sweet Sultan, ditto

Amaranthus {
Pupureus
Coccineus
Tricolor

sown in March or April, as the former

N. B. These must be kept in Glasses from Rain, and drawn a little whilst young, or else they won't rise tall and well.

Convolvulus major and minor, and Nasturtium Indicum majus and minus, are to be sown as the former, and planted out in May against a Reed Hedge, &c.

Planta Sensitiva, or Sensible Plant, to be sown in Pots in a very strong Hot-Bed, in March or April, but good Seed is hard to be got

C L A S S XI.

Forest Seeds, Setts, &c. for Avenues and large Plantations.

Oaks, (the English, Norway, Evergreen, Scarlet, Bay,) by Acorns sown in February and March

Ash, Sycamore, Maple, by Keys sown in March or April

N. B. The Ash lyes in the Ground two Years. English, Dutch, Witch, and all other Elms, are chiefly rais'd from small Branches or Layers, laid down about Michaelmas

N. B. The English and Witch Elm Seeds grow every Year in England, and are sometimes rais'd from thence ; but 'tis rare that the Seed of the English is good enough to produce Plants, at least it is difficult to raise them so. The Witch indeed succeeds much better, and it is a good way to graft the English thereon.

Beech, Hornbeam, are raised from Seed sown in February, March or April ; but the Seed of the Beech fails very often, and the Hornbeam is two Years coming up.

Firrs, (Silver, Norway or White Spruce, New England or Black Spruce,) as also the Scotch Firr, or Pine Pinaster, and large Pine, are all rais'd by Seeds sown in March or April

Chestnuts, Spanish and Horse, Scarlet flowered, rais'd of Nuts sown in February, March or April

Platanus, Oriental and Occidental, chiefly of Layers or small Boughs, laid down about Michaelmas or in the Spring

Acacia, two kinds, propagated as the former

Cedars,

Cedars, of Silesia, Goa, Virginia, Lebanon, Bermudas, of Seeds sown on a strong Hot-Bed in February or March, the Seed being generally so old, before it comes hither, that it will not grow otherwise.

C L A S S XII.

Trees, Greens, and flowering Shrubs, for Wildernesses, Parterres, &c.

Laburnum

Spanish Broom

Sena major

Juniper

Pyracantha

Common Phylerea

Arbutus

Amomum Plinii

Mezereons

Laurel

Holly

Bay

Yew, &c.

Are all rais'd by Seed sown in well prepared Beds in March or April, but the Yew, Holly and Mezereons, generally lye two Years in the Ground before they come up.

Pistachia Virginia, Tulipifera Arbor, or Tulip tree, the Lotus or Nettle, *cum multis aliis*

Large blue and white Lilacs

Persian Lilac

Syringa

Guelderose

Sena minor

Phyllerva

To be planted as all other sorts of Fruit Trees should, in most Soils, between Michaelmas and Christmas.

QUINCES.

The Barbary, good, but small
The Lyons, a large yellow
The Brunswick, a large white
The Portugal, excellently good, and preferable to the rest
To be planted in watery moist Ground, near or at the bottom of the runing of a Stableyard, any time in the Winter.

MEDLARS.

The common kind
Large Dutch
Dwarf
To be planted any time of the Winter Season in strongish Land,

CLASS XV.

Stocks to raise Fruit Trees of all kinds on, as also Sets for the Enclosure of Grounds, and the like.

Stocks for Peaches and Nectarines.

Almond
St Julian
Margaret
Muscle
Norwich

To be set out in February, or sooner.

For Apricocks.

Common Plumb Suckers

Bullace

N. B. The last sort is for Bruffels Apricocks.

For Pears,

Medlar

Quince

Wild Pear

Sometimes Whitethorn.

For Apples of the several kinds to be grafted on,

French }
Dutch } Paradice

Royal Wilding

Crab Stocks.

For the inbanking and dividing of Lands,

Whitethorn

Crab Sets

Wild Bullace

Hornbeam

French Turge

Broom

By seeding or bedded. Sets planted out in February, but the two last by Seed sown in March or April.

C L A S S

C L A S S X V I.

For Improvements in Husbandry,

Grass-Seeds, &c.

Hop Clover, Nonfuch, or Trefoil
Dutch, or Broad Clover
English Clover, or Congress
St Foyne, French Grass, or Holly Hay
Lucerne, or Medick Fodder
Dantzick Line, or Flax
Suffolk, or Tankard Turnep
Buck Wheat, or Beach Corn
Hemp
Spurns
Rape
Lentils
Woad or Weld
Madder, Saffron, and Hop Roots
Red and white Potatoes.

To be sown in March, April or May, except the four last Roots, which are increased by Off-sets transplanted in March.

F I N I S

BOOKS Printed for THOMAS ASTLEY,
at the *Rose* in *St Paul's Church-yard*.

Just Publish'd, The FOURTH EDITION of

SIR ISAAC NEWTON'S TABLES FOR RENEWING and PURCHASING of the LEASES of CATHEDRAL CHURCHES and COLLEGES, according to several RATES of INTEREST, with their Construction and Use explained. Also TABLES for renewing and purchasing of LIVES; with TABLES for purchasing the LEASES of LAND or HOUSES according to the several Rates of Interest. Very necessary and USEFUL for all PURCHASERS; but especially THOSE who are any way CONCERN'D in CHURCH or COLLEGE LEASES.

To which is added, by a *Right Reverend Prelate*

The VALUE of CHURCH and COLLEGE LEASES consider'd, and the ADVANTAGE to the LESSEES made very apparent. Price 1 s.

A Compendium: Or, Introduction to Practical Musick. In Five Parts. Teaching by a New and Easy Method, I. The Rudiments of Song. II. The Principles of Composition. III. The Use of Discords. IV. The Form of Figurative Descant. V. The Contrivance of Canon. By CHRISTOPHER SYMPSON. The Seventh Edition, with Additions: Much more correct than any former, the Examples being put in the most useful Cliffs. Price 2 s.

A Collection of Novels and Tales: Written by that celebrated Wit of France the Countess D'ANNOIS, In Three Volumes. 12^{mo}. The Second Edition. Translated from the best Edition of the Original French. Price 7 s. 6d.

Dictionary Rusticum, Urbanicum, & Botanicum: Or, a Dictionary of Husbandry, Gardening, Trade, Commerce, and all Sorts of Country Affairs. Illustrated with a great Number of Cuts. In two Volumes 8^{vo}. The Third Edition. Revised, corrected, and improv'd; with the Addition of above three hundred Articles. Price 9 s.

The Retired Christian, exercised in Divine Thoughts and Heavenly Meditations for the Closet, with a suitable Prayer to each Meditation. I. Of Solitude. II. Of our Saviour's Love to us. III. Of the Joys Heaven. IV. Of the Contempt of the World. V. Of the Holy Eucharist. VI. Of the Sufferings of Hell. VII. Of the Shame of appearing strictly Pious. VIII. Of Death. IX. A consolatory penitential Meditation upon the Merits of Christ's Suffering. X. Of the Benefits of our Lord's Passion. By THOMAS KENN, D. D. late Bishop of *Bath* and *Wells*. Pr. 1 s. or 10 s. a Dozen to those who give them away.



