

ccccccc *The Verge of fine Changeable Green and Red Hair that covered the Sides and part of the Back.*

ddddddd *The hard sharp Prickles interspersed among the Hair.*

Figure the 2d. eeeee *The Skin of the Belly.*

FFFF *Several Incisures resembling Joints towards the Tail.*

g g g g g *Darker Spots in the Skin of the Belly.*

h h h h h *The Feet of each side the Belly.*

I I I I I *The Fins with their hairy Fringe behind the Feet.*

kk *The large Mouth opened wide.*

III. *Part of Two Letters wrote some time since to Oxford, by Dr. Martin Lister, Fell. of Coll. of Phys. & R. S. concerning several Plants may be usefully Cultivated for Producing Grass or Hay.*

FOR the improvement of Sandy light Ground, or any clay well Sanded, I recommend upon Experience *Vicia multiflora nemorensis perennis sive Dumetorum, J. B.* It hath these Qualifications beside those mentioned in the Title of *J. Bauhine*, (*viz.* of its being Perennial, thriving even in Woods and among Bushes, and being of the Pulse or Pea-kind) that it shoots One Thousand Roots far and wide, and spreads it self under Ground like Quick Grass; above Ground it is so Rampant, that it will Climb a Fathom and half upon
measure,

measure, and will preserve it self in spite of Weeds or Drought.

Again, it may be Set as well as Sown in Furrows, and for this purpose the Roots may be dug up in *September*, as well as the ripe Seed then gathered; by this means the growth of it would be mightily advanced, for the older the Roots are, the stronger and fuller of Buds and Shoots they are.

I Sow'd the latter end of *March* the Seeds I had gathered in *September*, and had that Year a very great Encrease, the Bed being thick covered over with Grass above Two Foot high, but it did not Flower that Year.

I reckoned that One Pea had put forth that Year above Thirty Shoots in *August*; in the Second Year it Floured by the middle of *June*, and bore a wonderful Crop, the Roots being innumerable. I have observed this Pea very common in all the Mountains as well as Plains of *England*, wherever Bushes or Hedges are.

Both the Pea and Grass are very sweet, and very agreeable to Cattle, as I have tryed.

I shall subjoin to this an Account of Claying a very light Sandy Soil, which hath been practis'd very many Years in some parts of *Torkshire*; and although it be used only for Corn, yet it will as well serve to the preparing the Soil for the afore-mentioned Pulse-Meadow. For it is a great mistake to think, that naturally Barren Ground will never be otherwise, unless by some sort of Manuring.

These Four Towns in the North Riding of *Torkshire*, standing upon a light Sandy Soil, *viz. Tollethorp, Toller-ton* do all of them Manure much of their Ground by Clay. This Clay is dug hard by, in the Declivity of a Hill. After having ba-

red away Two Yards deep of Sand, they sink a square Pit Six Yards deep, and Eight or Ten Yards square. The Clay is of a blewish Brown Colour, not Sandy at all, but Close and Fat, and very Ponderous; it burns well for Bricks: They lay One Hundred Load of Clay upon an Acre of Ground; they Dig it at *Midsummer*, and only in a dry Summer; they observe, that for Three or Four Years it continues yet in Clods upon the Land; and that the first Year the Land so Manured, bears rank, ill-coloured, and broad-grain'd Barley; but afterwards a plump round Corn like Wheat. This Clay-manuring, will by certain Experience last Forty Two Years in the Ground, and that of *Tolleshorp* Forty Eight Years, and then the Ground must be Clayed again.

This Sandy Ground, unless Clayed, will bear nothing but Rye, whatever other Manure or Lime your Compost be; but once Clayed, it will bear Oats, Barley, Pease, &c.

LETTER II.

To continue to give you some Thoughts about the Improvement of Agriculture, it may be considerably advanced by the great choice of Plants, even of those of our own Growth of the Pulse kind, of which (beside what I mentioned before) this List I recommend to industrious Gentlemen who have Leisure in the Country.

Lathyrus major latifolius. Ger.

Lathyrus luteus sylvestris dumetorum. J. B.

Astragalus sylvaticus. Ger.

Vicia sylvestris semine rotundo nigro. C. B.

Orobus sylvaticus nostras. C. B. P. in Append.

Vicia sylvatica multiflora maxima. P. B.

I also recommend as substitutes of Hemp and Flax, of our *English* growth, viz. Perennial Plants.

Linum sylvestre angustifolium. J. B.

Linum sylvestre floribus cœruleis. Ger.

Corona fratrum, of the Thistle kind. This Plant is generally a Yard tall; its Fibres are exceeding tough and strong, beyond any I ever tryed; it puts forth many of these tall and very thick Stalks yearly; it naturally grows to this bulk in most Barren Soils, as the dry Woods and high Pastures in *Yorkshire* and *Lincolnshire*.

It may be objected, that as annual Plants require more Labour and a fatter Soil, so they recompense it in largeness of Growth and Fruit; and also, that Plants of lasting Roots, are mostly harsh and bitter, and not palatable for Man or Beast: I answer, that the *Compendium* of Labour in Husbandry, is all in all; and that therefore the durable Plants will turn to better Account, I refer to the wonderful Examples of such as have already been made use of, as *St. Foin* (a known Plant of the natural growth of *England*) &c.

And if so, 'tis to be hoped, that Diligence will furnish us with agreeable Plants, if these, which I have now named, are not such, which yet I affirm to be all of them palatable.

Further, it is probable, that by some Tillage, even harsh Plants may be improved and brought to kinder Food: the same *Asparagus* which we eat, grows wild in the Marshes of *Lincolnshire*, very fair, and not to be distinguished by the Eye from that in our Gardens, but is intolerable bitter; which Garden Culture alone has civilized, and made pleasant to the Taste.

For this purpose, the Liming of Pasture Ground, is not so much to fertilize and make the Grass grow ranker (for it is naturally too rank in the Northern Mountainous

wet Pastures) but also to make it palatable to Cattle, to make it eat short and tender, and sweet, which it does by a kind of blanching it. Cast Lime over the one half of a Pasture, the Cattle will not bite any where else willingly, and will eat here to the bare Ground, much neglecting the other half.

I did use, when I lived in the North, to Lime my Asparagus and Lettice Beds, and this did so far meliorate them, that they far exceeded in tenderness and pleasant Taste; covering the Asparagus in Winter with clean wheat Straw, instead of nasty Litter, and Sowing the Bed thick with the Powder of burnt Oyster-shells.

However, without dispute, admit the choice we have made to be but tolerable, yet they will be of better growth, hardier, and less subject to Calamities, than any Grain or Pulse that are more strangers to our Soyle.

To Conclude, I have long had a fancy, that above all our *English* Plants to propagate, the *White Briony* would succeed best both for Hay and Corn, as giving the most Grass, if we would that way use it, and also yielding a Root of a prodigious bigness; which seasonably taken up, is little else but a Mass of fine Flower.

If it be objected, that it is a Churlish Purge, and not fit Food for Man or any other Animal that we we keep; I answer that such, and very much worse is the *Cassava* Root of which the *Indian Bread* is made, and which by Exsuccation and Baking alone, proves innocent and wholesome; nay even long drying alone altogether, corrects its purgative faculty; for I have frequently given (as a Direction in the Dropsie and Spleen) Two Drams of the Powder daily to infirm
People,

People, without any the least Disturbance. If the vast shoots it makes be designed for Hay; they are to be cut when tender and in the Flower.

Sir, I have here Transcribed the Two Letters you desired; I had the Copies from the Book at Oxford, which Dr. Musgrave lent to a Kinsman of mine there, to Copy them, in 89, or 90. who not being hujus rei peritus, I have had some difficulty to make them intelligible.

IV. *Part of a Letter from Fort St. George, in the East-Indies, giving an Account of the long Worm which is troublesome to the Inhabitants of those Parts, Communicated by Dr. Martin Lister, Fell. of Coll. of Phys. & R. S.*

ON the Second of *May* we arrived here, and in a few Days after, the Fruits of my *Gomroon* Journey shewed themselves; for a little below the Instep of my left Foot, a Worm put out his Head, which afterwards cost me much trouble: These Worms are bred by the Water, between *Gomroon* and *Schiraz*, especially that about *Laur* they come out in any part of the Body, and are very troublesome and dangerous; for I have known those who have kept their Bed for them, some Six, some Ten Months, and some there are who have lost sometimes their Legs, sometimes their Lives by them; they come out sometimes to the length of Six or Seven Yards; when they