Some Inquiries and Suggestions concerning Salt for Domestick Uses; and concerning Sheep, to preserve them, and to Improve the Race of Sheep for hardiness, and for the finest Drapery. In a Letter from Doctor John Beal to the Publisher.

would be the best and surest Prevention against the Rot of Sheep, if it could be had at Easie Rates upon the Downs; for which England is generally most concern'd: For, Sheep do support our great Staple-trade, as is implied in the Proverb, That London-bridge hath Wool for the Foundation, and that our Senators in Parliament do sit on Wool-sacks. Therefore I here annex and intermingle the Consideration of Salt and Sheep, as most necessary commodities, and not out of the Road of your Useful Philosophy; nor by you omitted in your Ph. Transactions. Against the Rot in Sheep Spanish Salt is recommended Numb. 100: and the means to get Salt is describ'd or suggested Numb. 51, 53, 54, 66, 102.

2. From the last of which I will begin to sollicite these further Inquiries: At what places about Lemington in Hamp*shire* Salt is made? What Quantity is made there? Whether any Salt is made in the Isle of Wight, or in the Isles of Fersey or Guernsey, or any Isles or Coasts belonging to England, Scotland, or Ireland? And what is the peculiar accommodation in Lemington, which occurs not on other Coasts? What kind of Salt, white or bay, &c? And, if it might be obtain'd from a trufty friend, to know, what is the gain by each Copper at Lemington; the Proportion of the Copper; how many workmen for one or more Coppers; what their Wages, and what other Charges? To the purpole, that where the Wages or other Charges are lefs, and the Accommodation not wanting, the fupply for the Neighbourhood, or as the Seas and Rivers may convey the Salt, may be encouraged. Note, that the Brine at Nantwich, contains a Third, or Fourth, or when least, a Sixth Part of Salt.

3. Mr. Winthorp by Letter told you, that he had the Way of making good Salt in New-England in great abundance and at easie rates. They complain, that great wages are required there;

which does much retard their Building of Ships and their Iron-works; which would otherwise do them great Service, and do a necessary Kindness to this Kingdom at present, if applied to fave our Timber, which begins to be scarce. And Salt is requisite for their great Advantages by Fishery, if they have learnt to cure their Cod and Sturgeon, of which they have abundance on their Coasts and Isles; and they have the nearest approach to secure the English Interest on Newfoundland, and for the Filhery on the Bank. Under one you may inquire, what Accommodations they have, or what Helps for Salt about New-York, or other Places in that Continent, or in any Isles of the English Colonies. If a sufficient Sunshine and Industry be not wanting in Ireland, I cannot guess what should hinder them to have abundance of Salt for themselves, and their Fishery, and for others, fince they cannot want Workmen, and their Wages (as I am inform'd) not great, if

compar'd with the usual Demands in South-England.
4. In Varro's Days it was the Reproach of our Transalpines (who dwelt much farther towards the South than we do) that on the khine there were then neither Vines, nor Olives, nor

Apples, nor Sea-Salt, nor Fossil-Salt, but were driven to the poor Shift of using Burnt-wood for their Salt: Ubi nec Vitis, nec Olea, nec Poma nascerentur; ubi Salem nec fessilem nec maritimum haberent, sed ex quibusdam lignis combustis, carbonibus falsis pro eo uterentur. Varro de re Rust. 1. 1. c. 7. The World is, as to those Things, much amended (since those Days) on this fide the Alpes: And the English may yet be minded to proceed, as far as they can, to remove the Reproach; at least for Fruit; Wine, and Salt. Cato c.88. teaches diligently, how to make vulgar Salt (popularem Salem) purely white. Columella 1. 12. c. 53. thews, How to order our Bacon and our Salt (cocto Sale, nec nimium minuto, sed suspensa mola infracto, diligenter salito, for our delicate Gammons, &c. and there instructs, How to boil Salt, and how to feafon the feveral Parts of Bacon. And l. 6. c. 1. for Application to fore Eyes (a curious Point) he prefors Salem-Montanum, Hispanum, vel Ammoniacum, vel etiam Cappadocum, minutè tritum, & immistum melli. All our good

Housewives do find a great Difference between our common

Bay-Salt, and the several other Salts, which are in ordinary Use

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amongst us. We find some white Salt very faint; and the Price imports a Difference between Spanish, French, and

Portugal Salt.

5. The Illustrious Palladius, who wrote about the Year 350, and had his ample Manors or Territories in Italy, Naples and Sardinia, and thereby had great Experience in Sheep, feems to give sure Rules, How to preserve the Flocks sound; Novemb. Tit. 13. Seet. 2. Among his Adviso's he faith, Salis tamen crebra conspersio, vel pascuis mista, vel canalibus frequenter oblata, debet pecoris levare fastidium. All these Three, Palladius, Varro, and Columella, do give infallible Instructions for the Prefervation of our Flocks; but the Rules cannot be observed by those that have the greatest Flocks: To change Pastures often, to be supplied in rainy Seasons with dry Fodder, to lick salted Troughs, to have some turns in Salt-Marshes: The Words of Palladius l. cit. are, Pascua ovillo generi utilia sunt, quæ vel in novalibus, vel in pratis siccioribus excitantur, palustria verò noxia funt. And Gabr. Prat. from his own, and his Ancestors Experience of 80 Years, bids us take heed of the pregnant Verdure, when much Rain falls in the vernal Months of April, and May: And all Sheep-masters are afraid of rainy Autumns. But whence thall the Relief be had? The Charge will be heavy, if the fame Fodder be provided for every Year, and the destroying Years do furprize us. I hear, that about Salisbury some do plough up a few Acres, and fow a Kind of Pulfe, which they there call Tilth. And now we have in England so many Kinds. of French Seeds, and French Grass, that one Kind or other is like to prosper in most Places; and Fodder well ordered in Stacks will hold out for many Years, perhaps for Sheep the older the better. And hereabout they hold fuch friendly Correspondence, that in Autumn I see the Shepherds drive the Flocks out of Somersetsbire into Dorsetsbire, and those of Dorfetshire into Somer setshire, for the Benefit on both sides by change of Soil. Note, That crude Antimony cures Sheep and other Cattle, and fattens them also. I omit many Particulars commonly known and observ'd by careful Shepherds, as in Showers, and foon after a shower to drive the flocks gently, that they may beat off the Dew with their Feet, before they be suffer'd to feed on the wet Grass, especially in cold Mornings, when

dewy Cobwebs lie upon the Pastures; and to let the Sheep blood under the Eye, as soon as they can discern them Rank of Blood. I must refer to Mr. John Smith's Englands Improvement, 1.5. p. 170, 171. hoping that he will bestow a few Sheets more to direct punctually the best Way of ordering Sheep, and the most effectual Remedies against the several Kinds of Rots, and their other Diseases, as a Matter of no small Concernment to England, and in which he seems to have much Experience.

6. To return for more Salt, and to know the Shifts that are made, and lately were made for it in England. At Wirewater in Lancashire Salt is gathered out of Heaps of Sand along the Sea-fide in many Places: Upon which Sand (faith Speed) the People pour Water until it gets a faltish Humour, which they afterwards boil with Turfs, till it become white Salt. Cambden in Britann. fol. p. 753. describes it thus, In ora hac maritima mu'tis in locis sabuli cumulos videas, quibus aquam subinde infundunt, dense salsuginem contraxerit, quam postea subditis glebis in candidum salem excoquunt. And Speed saith, There are certain Stones lying in the River Were at Butterbec near Durham, from whose Sides, at the ebb and low Water in Summer, issues a certain Salt reddish Water, which with the Sun waxeth white, and growing into a thick Substance becomes a necessary Salt for the By-dwellers. Cambden p. 744. describes it thus, Inde Vedra decurrit, crebrò eminentibus saxis interpolatus, quibus si aqua infundatur, parumque misceatur, salsam imbuit qualitatem. Sir, you took Notice of two or three faline Springs in this Neighbourhood of Somersetshire: One examin'd by Dr. Highmore, in your Num. 56. p. 1130; another Num. 57. p. 1162. And doubtless there are many more such in England, if well observ'd: And tho' the Proportion of Salt be small, yet they may serve for some domestick Uses. The Water in Summer-time, when the Brine is strongest, being cast in any Place where it may be soon dried by the Sun, and where we would have Pigeons refort, does pleafe them well. So will any refuse Brine being boil'd up to a Confistence. But I know not whether such Brine taken from powder'd Flesh will be kind for Sheep. Possibly such saline Springs may indicate fossil Salt for future Industry. And N. 56. p. 1135. you recite from worthy Mr. Evelyn a good Hint to encourage some Attempts for the Multiplying of Saltzin Sylva secund. Edit.

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c. 3. p. 26. Sect. 17. Sir Hugh Plat hath faid and collected enough of the Vertues and Uses of Salt (and how it may be obtain'd) for the Fertilizing of Land, in his Jewel-Louse, c. 104.

7. Now to improve the *Race* of our *Sheep* for Hardiness, or for Largeness of the Size, and Abundance of Wool; we hear, that many wealthy Sheep-mafters on the Downs do offer very high Rates for the largest Sheep, Rams especially, that they can procure; and fometimes they buy from foregin Parts very large and lufty Rams, and find the Benefit by the Largeness of the descending Race. And since, in several Parts of England, they feriously set on for the finest Drapery, 'tis to be wish'd that our Merchants would bring us from those Parts of Spain, Italy, and Greece, (which boast of the finest Wool) both Rams and Ewes that bear the finest Wool, that we may try them at Lembsterfore in Herefordshire, where they are skill'd, and generally practifed in ordering fuch delicate and tender Sheep, and to try them in other Parts, where they pretend to the finest Wool in England. Our Merchants fay much, and require good pay for the Spanish Wool; some for the Wool of Segovia. Of old the Sheep of Tarentum had in Italy the highest Esteem. These Tarentin Sheep were brougt into *Italy* from *Greece*, and were fo tender, and did require such curious and costly Attendance in Varro's Days, being all cover'd with Leather Pelts (pellibus integuntur). to guard them from Heat or Cold, and to preserve their Purple Fleeces from all Pollution; Varro 1.2. c.2. and after, in Columella's Time, required fuch exact Skill to preferve them, Colum. 1.7.c.2. that I know not how to recommend them for our English Climate, and our ordinary Shepherds. Pallad faith, l. cit. Gracas oves, sout Asianas, vel Tarentinas, moris est potius stabulo nutrire quam campo. I must refer to better Advice for such a Race as is likely to live among stus, and then if Gentlemen wou'd make the Trial to amend the Race of Sheep (as they have often attempted to amend our Race of Horses by the best of Barbary, and as with more Hope the Gentry in Ireland may affay to mend their mettalsome Hobbies with Spanish Genets, or Bards from Tangier,) under one, by the same or like diligence, and by the same adventure, they may chance to oblige their Country both ways, both with Sheep bearing finer Wool, and with better Horles than the Irish Hobbies; I dare not say, than the right British.

For I was told by a great master of horses, who had many years experience of Stallion barbs, the best he could buy, that the bastard barbs, descending from the best English mares he could obtain, were constantly better shaped, and better for the faddle and other stronger service, than their Syres. But I turn'd here aside to name Ireland, because the rot of sheep is not fo ordinary in Ireland as in England, and they are nearer Spain and Tangier than we are: And they are highly to be commended for their late industry, both in the linnen and Woollen manufactures; which may nobly provoke our emulation. And whilst England and Ireland strive to excel each other in good things, we draw closer to a perfect union, and to give strength and affistance to each other mutually. Sir, you having been long accustom'd to bear the burthen of useful Inquiries, and to promote the common good, you'l pardon this freedom in, &c.