

IV. *Of the Nature of SILK, as it is made in Piedmont. Communicated by William Aglionby, Esq; F.R.S.*

Silk, which is the Spittle of a Worm, hath its good or bad Quality from the Nourishment the Worm receives either from a good or bad Leaf; Therefore the chief Dependance is on a happy Spring, proving both sweet and pleafant; exempt from too much Rain, which commonly rot the Leaves; from Southerly Winds, which burft the Worms; and from ftrong Northerly Winds, whose piercing cold fpoils the Leaf, giving it an ill Quality. All thefe unfeafonable Weathers are very pernicious to thefe little Animals, which every one obferve with great Attention, and follow more or lefs the Indications; from whence they draw the Confequences by the Product, in Quantity and Quality.

When the Spring proves delightful and sweet, the Worm feeding on a good and tender leaf, free from the Prejudices of an unkind Season, (which fometimes fpoil the Leaf, by giving it a rough, grofs, and heavy Nature) then one may expect a profitable Harvest; and in fuch Years 'tis beft to make a good Provision, for Silk will then find good Sale when moft Abundance, and the Buyer meets with that of a good Substance, which the advantagious Season very much contributes to; but not knowing how long it may laft, about Midfummer (or St. John's Tide) they begin to draw the Silk from its *Cocon*, to fee what it yields, and judge of its increafe or fcarcity, as well as the estimate of its goodnefs and perfections, thofe moft defirable are, *viz.* That it proves clean, light, and ftrong.

Great

Great Use may be made of these Observations, and no less Advantages to be drawn from them, provided the Management be with Study to improve them; for it requires a particular Care to hatch the Eggs, as also tenderness and great caution must be used, even till the Silk be ready to be drawn off.

In case the Season should not prove plentiful, then they buy as fast as they can old Silk, and keep as much as they can of the other, for the best Fabricks, that so they may not be obliged to hazard all their good, at the Price of the worst, which is commonly practised. But if the Season promises a great and satisfactory Harvest, they take the new, and put it apart for the best Fabrick, not despising the old, but only laying it aside, till proof be made whether the new be better or not.

*Some Observations to know the best Silk,
or Organcine.*

The Goodness of Silk is distinguished by its lightness, as the most Essential Quality, which every Body knows carries a considerable Profit along with it, when bought by weight, and sold by the Yard or Aune. It is to be noted, that the *Organcine* is Super-fine, it being the best sort, and N^o: That the two threads are equal in fineness, that is to say, both alike in smoothness, thickness and length, for the thread of the first twist: For the second, it matters not whether the single thread be strong, before the two are joined, unless to see whether the first twist prove well. It is necessary the Silk be clean; the Straw colour is commonly the lightest, and the White the heaviest of all. It is likewise convenient, that the Skeans be even and all of an equality, which shews they were wrought together; otherwise
with

with great reason one may suspect that it is refuse Silk, and cannot be equally drawn out and spun, for one Thread will be shorter than the other, which is Labour and Loss. It will be also requisite to search the Bale more than once, and take from out of the Parcels a Skean to make an Essay; for unless one buys that which one knows by tryal, there is a hazard of being Cheated, and so, for one sort, have another.

To make an Estimate of Silk by Essay, and to know its Lightness.

Fix the Essay upon one eighth of a *Portée* hand of Silk, of 110 Aunes of *Lyons* in length, and see what it makes of Aunes by the Eighth part; the Skean which is of 80 Threads, must be multiplied by 110 Aunes of *Lyons*, which is the length of 110 Aunes, from which Number must be deducted one eighth; as for Example, 110 by 80 makes 8800, the eighth part of which is 1100, which is the eighth part of a *Portée*: Now to calculate what these 1100 Aunes weigh, which is the eighth part of a *Portée*, or of 110 Aunes of *Lyons*. It will be proper to take a Skean out of the Parcels which you take from out of the Bale, which you judge may contain at least 1100 Aunes, to make the one eighth part of a *Portée*, which *Portée* must be divided on two Bobbins, half on each, then fix the two Bobbins on the *Cantre* (Beam, and from thence pass it through the (*Combe*) *bourdissoir*, viz. 550 from the Two Bobbins will make 1100, which will be one eighth part of what you desire to know; this done, you cut off your Silk, and carry it to be put on the *Hourdissoir*: Then weigh it, and Multiply the weight by eight,

it will weigh just as much as a *Portée* of 110 *Aunes* of *Lyons*, which is the general Rule for Calculating, when they draw the Silk out: By this means one may learn to adjust the weight. There are Silks of *Piedmont* which are very light and clean, and to be preferred before any, in Sale; The *Portée* of Silk of the lightest, weighs near twenty four Penny-weight to twenty five and twenty six Penny-weights the *Portée*; others twenty seven and twenty eight, which Weight may be dispensed with, on condition the other Qualities be as good, to wit, well wrought, Even, Fine, and Clean: But above these Weights they cannot be, unless they abate of their Profit, proportionable to what they want in lightness.

V. Two Propositions desir'd to be Answered in a Year and half, by any Person; if they are not in that time, the Proposer promises he will do it himself.

QUUM à præparationibus ac solutionibus Chymicis, varias, secunda corpora, subeant mutationes; de viis brevioribus, simplicioribus, ac magis naturalibus sollicitus indagant homines; præter alias invenitur quod

Dato nascente Vegetabili quolibet à nascendi modo, ejusdem cohærendi nisus, seu partium ejusdem mobilitas ac immobilitas, determinari possunt.

Quæ