

*The Description, Culture, and Use of Maize. Communicated
by Mr. Winthrop.*

THe Corn, used in *New-England* before the *English* Planted there, is called by the Natives, *Weachin*, known by the name of *Maijs* in some Southern parts of *America*, where, and even in the Northern parts, amongst the *English* and *Dutch*, who have plenty of Wheat and Grain, this sort of Corn is still much in use both for Bread, and other kind of food.

The Ear is for the most part, about a span long, composed of several, commonly 8. rows of Grains, or more, according to the goodness of the Ground; and in each row, usually above 30. Grains. Of various colours, as Red, White, Yellow, Blew, Olive, Greenish, Black, specked striped, &c. sometimes in the same field, and the same Ear. But the White and Yellow are the most common.

The Ear is clothed and armed with several strong thick Husks. Not only defending it from the Cold of the Night (being the latter end of *September* in some parts before it be full ripe) and from unseasonable Rains: but also from the Crows, Starlings and other Birds; which being allured by the sweetness of the Corn before it hardneth, come then in great flights into the fields, and pecking through the top of the Cover, devour as far as they can reach,

The Stalk groweth to the hight of 6. or 8. feet; more or less, according to the condition of the Ground, or kind of Seed. The *Virginian* groweth taller than that of *New-England*. And there is another sort used by the Northern Indians far up in the Country, that groweth much shorter than that of *New-England*. 'Tis always joynted like a Cane. And is full of sweet juice, like the Sugar-Cane. And a Syrup as sweet as Sugar may be made of it; as hath been often try'd. And Meats sweetned with it, have not been distinguished from the like sweetned with Sugar. Trial may easily be made, whether it will not be brought to CrySTALLIZE or shoot into a Saccharine Powder, as the juice of the Sugar-Cane.

At every joynt there are long Leaves almost like flags, and at the top, a bunch of flowers, like the blossoms of Rye.

It is Planted between the middle of *March* and the beginning of *June*. But most commonly from the middle of *April* to the middle of *May*. Some of the Indians take the time of the coming up of a Fish, called *Aloofes*, into the Rivers. Others of the budding of some Trees.

In the pure Northerly parts, they have a peculiar kind calld *Mohawks* Corn, which though planted in *June*, will be ripe in season. The stalks of this kind are shorter, and the Ears grow neaser the bottom of the stalk, and are generally of divers colours. The

The manner of Planting is in Rows, at equal distance every way, about 5. or 6. feet. They open the Earth with an Howe, taking away the surface 3. or 4. inches deep, and the breadth of the Howe; and so throw in 4. or 5. Granes, a little distant one from another, and cover them with Earth. If two or three grow, it may do well. For some of them are usually destroyed by Birds, or Moufe-Squirrels.

The Corn grown up an hands length, they cut up the weeds, and loosen the Earth, about it, with a broad Howe: repeating this labour, as the Weeds grow. When the Stalk begins to grow high, they draw a little Earth about it: and upon the putting forth of the Eare, so much, as to make a little Hill, like Hop-Hill. After this, they have no other business about it, till Harvest.

After 'tis gather'd, it must, except laid very thin, be presently stripped from the Husks; otherwise it will heat, grow mouldy, and sometimes sprout. The common way (which they call Tracing) is to weave the Ears together in long Traces by some parts of the Husk left thereon. These Traces they hang upon Stages or other Bearers within doors, or without; for, hung in that manner, they will keep good and sweet all the Winter after, though exposed to all weathers.

The Natives commonly Thresh it as they gather it, dry it well on Mats in the Sun, and then bestow it in holes in the Ground (which are their Barns) well lined with withered Grass and Matts, and then covered with the like, and over all with Earth: and so its kept very well, till they use it.

The *English* have now taken to a better way of Planting by the help of the Plough; in this manner; In the Planting time they Plough single Furrows through the whole Field, about 6. feet distant, more or less, as they see convenient. To these, they Plough others a cross at the same distance. Where these meet they throw in the Corn, and cover it either with the Howe, or by running another Furrow with the Plough. When the Weeds begin to overtop the Corn, then they Plough over the rest of the field between the Planted Furrows, and so turn in the Weeds. This is repeated once, when they begin to Hill the Corn with the Howe; and so the Ground is better loosened than with the Howe, and the Roots of the Corn have more liberty to spread. Where any Weeds escape the Plough, they use the Howe.

Where the Ground is bad or worn out, the Indians used to put two or three of the forementioned Fishes, under or adjacent to each Corn-hill, whereby they had many times a Crop double to what the Ground would otherwise have produced.

The *English* have learned the like Husbandry, where these *Aloofes* come up in great plenty, or where they are near the Fishing-stages; having there the Heads and Garbage of Cod-fish in abundance, at no charge but the fetching.

The

The Fields thus Ploughed for this Corne, after the Crop is off, are almost as well fitted for *English* Corn, especially Summer Grain, as Peafon or Summer Wheat; as if lying fallow, they had had a very good Summer Tilt.

The Indians, and some *English* (especially in good Ground, and well tilled) at every Corn-hill, plant with the Corn, a kind of *French* or *Turkey*-Beans: The Stalks of the Corn serving instead of Poles for the Beans to climb up with. And in the vacant places between the Hills they will Plant Squashes and Pompions; loading the Ground with as much as it will bear. And many, after the last weeding, sprinkle Turnep-feed between the Hills, and so, after Harvest, have a good Crop of Turneps.

The Stalks of this Corn, cut up before too much dried, and so laid up, are good Winter-fodder for Cattle. But they usually leave them on the Ground for the Cattle to feed on. The Husks about the Ear are good Fodder, given for change sometimes after Hay.

The Indian women slit them into narrow parts, and so weave them artificially into Baskets of several fashions.

This Corn the Indians dressed several ways for their food. Sometimes boiling it whole till it swelled and became tender, and so either eating it alone, or with their Fish or Venison instead of Bread. Sometimes bruising in Mortars, and so boiling it. But commonly this way, *viz.* by parching it in Ashes, or Embers, so artificially stirring it, as without burning, to be very tender, and turned almost inside outward, and also white and flowry. This they sift very well from the Ashes, and beat it in their wooden Mortars, with along Stone for a Pestle, into fine Meal. This is a constant food at home, and especially when they travel, being put up in a Bag, and so at all times ready for eating either dry or mixed with Water. They find it very wholesome Diet. And is that, their Souldiers carry with them in time of War. The *English* sometimes for novelty, will procure some of this to be made by the *Indian* women, adding Milk or Sugar and Water to it, as they please.

The Indians have another sort of Provision out of this Corn, which they call Sweet-Corn. When the Corn in the Ear is full, while it is yet green, it hath a very sweet Taste. This they gather, boyl, and then dry, and so put it up into baggs or baskets, for their use: boiling it again, either whole or grossly beaten, when they eat it, either by it self, or amongst their Fish or Venison or Beavers, or other Flesh; accounting it a principal Dish.

These green and sweet Ears they sometimes roast before the Fire or in the Embers, and so eat the Corn. By which means, they have sufficient supply of food, though their old Store be done. Their Souldiers also most commonly at this time goe out against their Enemies,

mies, having this supply in their Marches both at home and in the Enemies fields.

The *English*, of the full ripe Corn, ground, make very good Bread. But 'tis not ordered as other Corn. For if it be mixed into stiff Paste, it will not be so good, as if made only a little stiffer than for Puddings; and so baked in a very hot Oven, standing therein all day or all night. Because upon the first pouring of it on the Oven-floor, it spreads abroad, they pour a second layer or heap upon every first, and thereby make so many Loves. Which if baked enough, and good, will be of a deep yellowish colour; if otherwise, white.

It is also sometimes mixed with half or a third part of Rye or Wheat Meal, and so with Leaven or Yest made into Loaves of very good Bread.

Before they had Mills, having first watered and Husked the Corn, and then beaten it in Wooden Mortars; the courser part sifted from the Meal, and separated from the loose Hulls by the Wind, they boyled to a thick Batter: to which being cold, they added so much of the fine Meal, as would serve to stiffen it into Past, whereof they made very good Bread.

But the best sort of Food which the *English* make of this Corn, is that they call *Samp*. Having first watered it about half an hour, and then beaten it in a Mortar, or else ground it in a Hand or other Mill, into the bigness of Rice, they next sift the Flower, and Winnow the Hulls from it. Then they boyl it gently, till it be tender, and so with Milk or Butter and Sugar, make it into a very pleasant and wholsom Dish. This was the most usual Diet of the first Planters in these Parts, and is still in use amongst them, as well in Feavers, as in Health: and was often prescribed by the Learned Dr. *Wilson* to his Patients in *London*. And of the *Indians* that live much upon this Corn, the *English* most acquainted with them, have been informed by them, That the Disease of the Stone is very seldom known amongst them.

The *English* have also found out a way to make very good Beer of Grain: that is, either of Bread made hereof, or else by Malting it. The way of making Beer of Bread, is by breaking or cutting it into great lumps about as big as a mans fist, to be mash'd, and so proceeded with as Malt, and the impregnated Liquor, as Woort, either adding or omitting Hopps, as is desired.

To make good Malt of this Corn, a particular way must be taken. The Barly-Malt-Masters have used all their skill to make good Malt hereof the ordinary way; but cannot effect it; that is, that the whole Grain be Malted, and tender and flowry, as in other Malt. For it is found by experience, that this Corn, before it be fully Malted, must sprout out both ways, (*i.e.* both Root and Blade), to a great length; of a finger at least; if more, the better. For which, it must be laid upon an
heap

heap a convenient time. Wherein on the one hand, if it lyeth of a sufficient thickness for coming, it will quickly heat and mould, and the tender Sprouts be so intangled, that the least opening of the Heap breaks them off; and so hinders the further maturation of the Grain into Malt. On the other, if it be stirred and opened to prevent too much heating, these sprouts which have begun to shoot, cease growing, and consequently the Corn again ceaseth to be promoted to the mellowness of Malt.

To avoid all these difficulties, this way was try'd and found effectual. Take away the top of the Earth in a Garden or Field two or three inches, throwing it up half one way, and half the other. Then lay the Corn, for Malt, all over the Ground so as to cover it. Then cover the Corn with the Earth that was pared off; and there is no more to do, till you see all the Plot of Ground like a green Field covered over with the Sprouts of the Corn, which will be within ten days or a fortnight, according to the time of the year. Then take it up, and shake the earth from it and dry it. For the Roots will be so intangled together, that it may be raised up, in great pieces. To make it very clean, it may be washed, and then presently dry'd on a Kiln, or in the Sun, or spread thin on a Chamber floor. This way, every Grain that is good will grow, and be mellow, flowry and very sweet; and the Beer made of it, be wholsom, pleasant, and of a good brown colour.

Yet Beer made of the Bread, as aforesaid, being as well coloured, as wholsom and pleasant, and more durable; this therefore is most in use. And the rather, because the way of Malting this Corn, last described, is as yet but little known amongst them.

*An Account of the manner of making Malt in Scotland; by
Sir Robert Moray.*

Malt is there made of no other Grain, but Barley. Whereof there are two kinds; one, which hath four Rows of Grains on the Ear; the other, two Rows. The first is the more commonly used; but the other makes the best Malt.

The more recently Barly hath been Threshed it makes the better Malt. But if it hath been Threshed six weeks or upwards, it proves not good Malt, unless it be kept in one equal temper; whereof it easily failes, especially if it be kept up against a Wall: for that which lies in the middle of the Heap is freshest, that which lies on the outsides and at top is over dry'd, that which is next the Wall shoots forth, and that which is at the bottom Rots. So that when it comes to be made into Malt, that which is spoiled, does not *Come* well (as they call it) that is, never gets that right mellow temper Malt ought to have, and so spoils all the rest. For thus some Grains *Come* well, some not at all, some half, and some too much.