

# THE COLONIAL FARMER,

DEVOTED TO THE AGRICULTURAL INTERESTS OF NOVA-SCOTIA, NEW-BRUNSWICK,  
AND PRINCE EDWARD'S ISLAND.

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## THE COUNTRY GIRLS.

I love the country spinster,  
Who turns the buzzing wheel,  
Who plies with busy hands, the card,  
With merry hum the reel.

I love the country seamstress,  
Who makes the household gear,  
And who, with industry and art,  
Prepares the homespun wear.

I love the country milkmaid,  
Whose daily task supplies  
A wholesome food and beverage  
For country families.

Her neat and ample dairy,  
Her industry attest,  
And when night finds her weary,  
In innocence she rests.

From the Pictou Mechanic and Farmer.

## RUST IN WHEAT CROPS.

Mr. STILLS: Sir,—Through the medium of your useful journal, I beg to offer a few desultory remarks on the disease designated "rust," which our wheat crops are particularly liable to—whole fields of which are often found in the tracts of its desolation. It generally occurs about the end of August, in hot sunny weather, under a particular state of the atmosphere; it does not attack the crops gradually, nor *en masse*; but works destruction in certain situations in the course of a few hours.

Various causes have been assigned by writers on vegetable physiology, for this disease. Some of these opinions are very specious and deserve the study of agriculturists, although others are only calculated to mystify the subject, and perplex the understanding of plain practical men like myself. A writer in a late number of the "Maine Farmer" attributes the cause of rust in plants to a "rupture in their sap vessels brought on by a sultry state of the atmosphere." To my capacity this doctrine is incomprehensible, for the following reasons:—first, if true, how would certain parts of the same field suffer while other parts are exempt? am I to presume from this, that the sultry state of the atmosphere selects its victims from certain parts of a field, allowing others to escape? secondly, if I embrace this faith, I must believe that the fluids of plants circulate in channels like the blood vessels in animals, and there are certain times that the pressure of the atmosphere is not a sufficient counterpoise for the circulating fluids of plants; and that under such circumstances a "rupture of the sap vessels" takes place. I may ask how this cause is not general? and under such circumstances how animal life is sustained? we know that were it not for the uniform pressure of the atmosphere upon all organized substances, the inward pressure of the fluid would burst their channels and instantly cause a suspension of the vital principle. The atmosphere then, in place of being instrumental in causing a rupture in the sap vessels of plants, is the only agent to prevent such an occurrence.

It would be presumption in me to pretend to offer an opinion on a subject on which physiologists are at issue; I shall only state a simple case from my own observation, and the conclusion forced upon my mind *Ipso facto*. On the 20th of April, 1839, I sowed a large field in wheat after a potatoe crop, the ground was rich, free from weeds, and enjoyed a south-east aspect; the quantity of seed sowed was 12 bushels, viz.: 10 bushels common bearded and 2 bushels of a new variety of red wheat, highly recommended for its prolific qualities; the season proved favorable to vegetation, and the crop grew luxuriantly under these auspices, until the ear had nearly emerged from the milky state, (as it is called,) when I received on a sudden the red wheat attacked by rust,—the other being entirely exempt from it. From this circumstance, I con-

ceived an idea that there must be some radical difference in the structure of the straw, an opinion which upon examination I found well grounded. The straw of the inflected variety when stripped between the fingers proved soft and spongy, and susceptible of imbibing a large quantity of moisture. The straw of the other variety on the contrary, was possessed of a hard glazed coating, impervious to moisture. In viewing them through a powerful lens, they presented a striking contrast. The organic structure of the red variety appeared arranged in a very incompact manner; the vascular tissue was covered with an opaque cuticle easily permeable by fluids; while the straw of the other wheat, presented a more compact fibrous structure, strongly increased in a transparent cuticle, more capable of resisting moisture, consequently exempt from the vicissitudes of climate to which the soft straw was subjected. I reasonably concluded from these observations, that all soft strawed varieties of grain are liable to rust, and others *vice versa*. I was strengthened in this conjecture, in observing that the grain growing on the sites of old dung hills, have the straw generally rusted. The plant in such situation has generally soft straw, an overflow of sap being induced by a superabundant supply of food in an unprepared state, or undigested in the soil. Under such circumstances the healthy action of the organs are retarded, and the plant becomes an easy prey to disease. If we allow these observations to be correct, and take them in conjunction with the established opinion that rust is a species of minute *Fungi* (a tribe of plants which establish themselves wherever the putriferous process is going on by rapid decomposition,) we can easily account for this disease under all circumstances. We may suppose that during warm sultry weather, the atmosphere is highly charged with aqueous vapour, which being condensed during the night, falls heavily on the productions of the earth. Such plants as have porous surfaces will imbibe a large quantity of the condensed fluid, and retained until dispelled by evaporation, under the rays of a morning sun. Decomposition follows evaporation, the healthy flow of the vegetable sap is retarded, the organs become vitiated, decomposition prepares a seed bed for the minute germs of the *Fungi* designated rust, from its brown appearance. I have often observed such parts of a field as are under the rays of a bright morning sun, rusted, while other places escaped, from the circumstance of the straw being partly dry before the sun's rays reached them. Many farmers are so well aware of this principle, that they make a practice of sweeping the dew off the grain early in the morning, by a long cord extended over several ridges between two men. Perhaps a better rule could not be adopted to prevent rust. From these premises it will appear obvious that due attention ought to be paid to the selection of such varieties of wheat as are known to be hard strawed. It is also evident that a full east, or south aspect, is more dangerous for rust than a west, or north, where the vapours are dispelled before the plant is subject to the action of the sun. Mildew which attacks culmiferous plants, originates on the same principle. Every person who sows late crops of peas, in rich soil, will easily find a demonstration of the above statement. Mildew, however, is said to be a different variety of the *Fungi*, as also *Smut*, mouldiness which germinates in cheese, &c. and other species of the same tribe, amounting to 1,157 varieties known to Botanists, embracing the mushroom family; and although it has been remarked that these minute and apparently useless tribes are placed at the bottom of the scale of vegetable creation, exhibiting little of that loveliness of form or brilliancy of colour, by which other plants are distinguished, yet they are by no means superfluous in the scale of nature. They prepare a soil fit for vegetables of a higher order and keep up the integrity of the vegetable kingdom. I am, Sir yours truly,

J. IARNS.

Windsor, N. S., February, 1842.

CURE FOR TOOTH ACHES.—Mix alum and common salt in equal quantities, finely pulverized. Then wet some cotton, large enough to fill the cavity, which cover with the salt and alum and apply it. We have the authority of those who have tested it, to say it will prove a perfect remedy.—*Union Agriculturist*.