

door plants, and to show them the difference between plants properly forwarded under glass, and those improperly grown. (1)

Baltimore, Md., March 22.

W. F. M.

Newport, Vt., May 16, 1885.

My dear Mr. Fust.—Your queries on Mr. Fowler's article on Harrowing Young Corn leads me to think it may be worth while to write you that in this country when a farmer says "phosphate" he almost without exception means an ammoniated and usually a potashed superphosphate, otherwise called a "complete" fertilizer. If a plain acid phosphate is meant it is so expressed,—the unqualified word being used for the most common form.

In ordinary rough estimates we always allow 2 bushels of ears to make one bushel of shelled corn. This is tolerably near for average lots, but there is corn that will shell out 34 and even 36 qts. from two bushels of ears.

Allow me to thank you for the good work you are doing in the *Journal*,—there is not a more instructive agricultural publication in America. Yours truly,

T. H. HOSKINS.

Since closing my letter I note what you say (p. 71) about the Am. papers and clover. The reason is that there is, even in the oldest states, very little "clover-sick" land as yet, whatever the future may bring. So little indeed, that in 40 years experience, East and West, I never saw any, or ever heard of any.

T. H. H.

I receive so little encouragement in my by no means easy task, that I am doubly grateful to Dr. Hoskins for his too kind appreciation of my endeavours to promote the cause of sound agricultural knowledge.

ARTHUR R JENNER FUST.

When to Cut Timothy.

It has long been held by some that timothy should be left standing till nearly or quite ripe; that in earlier cutting "the bulb is left without support in its immanure state, and where it is suddenly exposed to the sun and heat it dies. If the meadow is left to stand till the bulbs mature, the plant retains its vigor." My observation for many years has convinced me that just the reverse is the case. When the stalk is ripe it is dry and woody, and the bulb has little vitality left. Cut earlier, young shoots put out at the base of the bulb. This they will also do when the stalk is matured, providing the ground is moist enough. All is dependent upon moisture, which timothy, like red top—with which it grows well—requires. It does not do well on light soil, and cannot withstand a long drought. If cut then it will be seriously hurt if the drought continues sometime afterward. In such case I have not unfrequently seen whole fields killed either when cut earlier or later—never any cut quite early, and for the good reason that they retained some of the early moisture of the season. Every observing farmer must know that in some seasons timothy meadows suffer great harm, and it is equally well known that it was the habit—as still to a large extent—to cut the crop late, when well matured, and often ripe. Certainly late cutting did not save it, and early cutting was little practised. Now it is cut earlier to some extent and with better success. This was the case last year, when we had one of the severest and longest droughts known.

(1) Most sensible counsel. The number of plants wasted by the ordinary treatment, and the disappointment thereby caused, is incalculable.

A. R. J. F.

All the early-cut meadows showed a fine green in the fall; late cut fields, I noticed, suffered badly. No new shoots put forth at the base, as in the other case, where the growth protected the ground from the hot sun and drying winds on good ground. In a moist season, a thick undergrowth—"bottoming," as it is called—always results. When fed off in pasture, which is equivalent to early cutting, the plant will thrive if it has its supply of moisture, however often it is fed off, or however tall it may be. Otherwise it will suffer, and in a severe drought, "burn out." Orchard grass, and even the small blue grass (*Poa Compressa*), will endure a drought that would kill timothy.

Let us then do justice to this excellent plant, productive and nutritious on our clay loams as it is, and instead of a single deteriorated crop, get the full benefit of the yield in two cuttings, making a rich and easily digested food, our meadows at the same time benefited. At least let it be tried, and adopt the use of the hay-cap, as rains will sometimes occur, often unexpectedly, and the damage will be more without the cloth to protect than its cost and trouble to apply it many times over. Fort Plain, N. Y.

F. G.

Hop-Growing in Central New-York.

A correspondent of the Albany Evening Journal from Waterville recently contributed to that paper an interesting article on this subject, from which we abridge the following extract:

For weeks during the early months of each year loads of hop poles follow each other, all day long, from the depôt, through the streets, out upon the farms. A few weeks later thousand of laborers commence at early morning and work through the day, until the sun leaves the country behind, grubbing hops, and pruning the roots. Poles are set; the vine is just starting out from the ground; a little while later and the yards swarm with women twining the vines around the poles and tying them in place. The drag removes weeds, the plow turns over the soil, and the hoe covers the roots with a little earth, and the hops are well on their way. Twice, at intervals of a few weeks, the plow and the hoe are introduced into the fields, and twice also the hops are tied, the second time when the vines are way up the poles and are branching on all sides. Two vines generally, not more than three in any case, are trained up the pole. The others are cut off, and the lower branches of the chosen two or three are clipped to within an inch or two of the main stalks. The hills are placed six feet apart and two poles are set in each hill. This is the process of hop culture.

No other crop shows neglect or incompetent cultivation so quickly as the hop. No other crop is so difficult of successful cultivation. An undulating country, or a higher altitude than the ordinary surface, is a requisite. An alluvial soil, high and dry, is another essential qualification for profitable raising and production. Low ground invites mould and rot. There the hop aphid, or louse, and innumerable bugs and insects feed fat upon the hop to its destruction. The aphid is, however, ubiquitous, and is a source of trouble and anxiety to every grower. The root of the hop, too, is set upon by worms peculiar to the hop, which often eat through the vine after it is well up the pole. Again, and later in the course of development, rust is apt to settle upon the recently budded hops, making it necessary many times to pick them before they are ripe. Constant attention from spring until fall, killing insects, overcoming the work of worms, bugs and insects, avoiding mould and rust, is required.

New-York is the great hop-growing State, and Oneida county, at and around Waterville, is the heart of the culture;