

THE BOTANY CLASS.

LESSON NO. 1.

We hardly know how to begin. There is a very general misapprehension of the study of botany. It is usually looked upon as a deep study, beyond the comprehension of common people. This is not true in any sense of the words. We first took up the study as an amusement, when confined to the house by poor health.

A few years later we made use of it. We began collecting wild plants for dealers. It proved to be a profitable business. When we moved to this state we found that our Northern botanical friends were of very little use as there were a great many flowers and plants here that were not described. So we sent for a copy of the Flora of the Southern United States. By the aid of this book we were able to identify most of the flowering plants and ferns found in this section of Florida. Later we engaged in business which allowed little or no leisure for such studies. Several times, within two or three years, when we have attempted to analyze a new flower, we found that we had become so rusty from want of practice that we had difficulty in determining the name. Of course, the facility will return with renewed practice.

In these lessons we shall try to make everything as simple and plain as can be done and still give a true understanding of the idea.

It will be impossible within the space available to do more than give an outline of a course of study. Those of you who are anxious to learn all that you can about the flowers of your neighborhood should send for a copy of the Flora of the Southern United States by Dr. A. W. Chapman. Botanical works are always expensive. The price of this book is \$4.00. We hope that as many as can will get it. By having this botany at hand you can soon learn to find out the name of a new flower without outside help. Without a book the best that you can expect will be to learn the names of those plants that we may describe. Gray's School and Field Book of Botany is the simplest that we know of.

Yet the lessons given, to be studied before the pupils take up the analysis of flowers, occupy 194 pages. Chapman's Southern Flora is not intended as a text book for schools, but for use in determining the names of plants by those who have some knowledge of botany. Still, the explanations and definitions that the author thinks it necessary to give occupy 16 large pages of fine print.

Prof. Willard N. Clute, editor of Isling for more than two years a series of articles called Botany for Beginners. We can not possibly do any better than to quote from these lessons.

"Although we now have numerous books for popularizing the study of our wild flowers and an equal number of manuals by the use of which, under the guidance of a teacher, one may become familiar with the science of plants, there is still to be heard the complaint, from the beginner working alone, that he makes progress slowly. One of his chief grievances is the excessive use of technical terms; even the popular works bristle with them. The fact is that botany, like all other sciences, is first of all exact, and the terms in use convey such definite ideas that the botanist finds it much easier to use them when writing for the beginner, than to select other terms more readily understood. The writer believes, however, that botany can be taught without a large amount of technical language and has prepared this series with this special end in view. Technical terms will be used only when they can not be avoided.

The Flower in General.

Excepting the herb-gatherer and the horticulturist, it may be said that the world's interest in botany centers in the flowers of plants. So pronounced is this that the word flower is often popularly used to indicate not only the blossom but the plant that bears it. In botany, of course, the flower is only that part of the plant that produces the seed or fruit. Not so very long ago it was believed that the color, form and fragrance of flowers was designed solely for the pleasure of mankind, but the case has gradually been proven otherwise and we now know that certain insects, rather than ourselves, are the individuals that plants strive to please. It is, however, only another indication of the wonderful harmony of creation that man should find so much pleasure in objects not intended primarily for him. At the beginning we may ask what flowers are for. Their most obvious office is that of settling seed and so perpetuating the species as well as extending its dominion, for seeds can travel much farther and faster than ordinary plants can.

All our common plants, except the ferns and their allies, bear flowers at some period of their life cycle. Plan of the Flower. A flower is simply a modified branch and all the floral organs are transformed leaves, or more properly, are produced from what might otherwise have been leaves. This at first seems rather difficult to believe, but Nature, herself, has given us many hints in the matter. Thus in certain geraniums the central part of the flower, which we may regard as the end of the branch, continues to grow and to produce a new flower, or even a truss of flowers, rising out of the old ones. Apples and pears have been found with a leafy shoot growing out of the blossom and showing very clearly that the parts of the flower are in the nature of modified leaves. That singular object, the green rose, is like other roses in the bud, but when it opens, it shows that all its petals have reverted to small green leaves. Upon examining some simple flower, such as the stone-crop, we find it consists of four kinds of organs. Beginning on the side next the stem there is a circle of five green leaf-like objects, the sepals, and collectively called the calyx. Next is a circle of colored leaflets, the petals of which form the corolla. Then comes a circle of thread-like organs with little knobs on the ends, the stamens, and last in

the very centre of the flower certain bottle-shaped bodies, the pistils. These organs always have the same relative position. The pistils are always in the centre of the flower, the sepals on the outside and the petals and stamens between. The terms sepals, calyx, petals, corolla, stamens, and pistils are necessary for even the beginner to know but they are all in such common use that they are doubtless already familiar.

In the stone-crop flower these different organs are so close together that most of its resemblance to a branch is lost, but in the blossom of the spider-flower (cleome) the parts are much more leaf-like in arrangement. Here we see a circle of four small sepals, and above it the four petals each on a stalk while the single pistil in the centre is raised above them all.

Every complete flower has these four kinds of organs but not all flowers are complete. The two kinds necessary to the plant are the stamens and pistils. In the production of seed, it is necessary that some of the yellow dust or pollen contained in the stamens should fall upon the pistil and stimulate their embryo seeds into growth. Otherwise no seed would result. Thus the stamens and pistils, being the only organs essential to the work of the flower, are called the essential organs. The sepals and petals have no such important offices to fill and are absent from the flowers of many species. When present, their functions are principally the protection of the essential organs from cold, wet and mechanical injury and the attraction and guidance of the insects that assist in transferring the pollen from stamen to pistil.

Leaving out of consideration, for the present, flowers of irregular shape, it will be found upon counting the parts of the flower that there is not much variation from certain definite numbers and that five and three are prime favorites. In the five-parted flowers there is normally a calyx of five sepals, a corolla of five petals, a set of five stamens and another of five pistils. When the number in any circle varies it will be found to be some multiple of five.

The pistils are frequently less than five but such cases are due to a consolidation of the original five. Examples of five-parted flowers may be found in the apple, peach, pear, buttercup, cinquefoil, blackberry, mallow, phlox, pink and saxifrage. Such blossoms are usually associated with plants having broad and net veined leaves.

In the three-parted flowers, sepals, petals, stamens and pistils are found in sets of three or multiples of this number. An excellent example is found in the trillium which has three sepals, three petals, six stamens and one pistil though the latter shows very plainly that it is a consolidation of three. The trillium is a very common wild flower at the North. The best example of easy access in Florida, would be our common wild red lily. In this the parts are the same as in the trillium, except that the sepals, the three outside parts, are just like the petals in color—Ed. The three-parted flowers are usually found on lily-like plants with narrow, parallel veined leaves. Examples may be found in the lily, crocus, anemone, tulip, iris, onion and water-plantain. In most of these there appear to be six petals of the same color and no sepals, but a close examination will reveal the fact that the three that were outside in the bud are slightly broader and thicker than the rest and so, for our purpose, may just as well be called sepals. The six colored divisions of three-parted flowers are usually called collectively the perianth.

We have quoted the most of one lesson. If you do not preserve your papers you should cut out these lessons and paste them into a scrapbook, for you will need to refer to them many times.

If there is anything that is not plain or clear do not hesitate to ask questions. But remember that we are preparing this matter on July 25, and it will not appear until August 2. So it will not be possible for answers to be printed under about three weeks from the date of your letter. We will give directions for putting up and mailing specimens in two or three weeks.

THE BOTANY CLASS.

Lesson II.

Prof. Willard N. Clute, in his second lesson in the American Botanist, begins with:

The Essential Organs. The essential organs of the flower—the stamens and pistils—are the very ones that to the casual observer may seem least essential. From the standpoint of beauty, at least, the sepals and petals are of most importance, but use and not beauty is the plant's first requirement and all the delicate hues and varied modifications of petals and sepals are but so many aids to those insignificant looking organs in the centre of the flower. The contents of stamen and pistil must be joined or no fruit will set, and in consequence the flower will fail to accomplish the very object for which it was produced.

THE PISTIL. The pistils always occupy the centre of the flower, excepting in the case of a few staminate blossoms when no pistils are present. A typical pistil such as that of the plum, is a bottle-shaped organ with three well defined regions. The enlarged lower part, containing the embryo seeds, is the ovary. The slender portion above is the style of least importance and is not found in the flowers of many species, the stigma in such cases growing from the top of the ovary, as in the trillium. (We do not think at this time of any flower found in this state in which the stigma is actually sessile but in several cases the styles is so short that the stigma is almost sessile. Ed.)

The stigma is the part of the flower that receives the pollen grains from the stamens. In the process of fertilization the pollen falling on the stigma germinates there, each grain

producing a tiny tube which makes its way downward through the loose tissues of the style to the ovary and there stimulates the embryo seeds into growth. If no pollen falls on the stigma, no seed will be formed in the ovary. The stigma is therefore usually moist and sticky so that the pollen will adhere to it and is borne in the position most favorable to the reception of the pollen.

Plants have many ways of securing pollination and the stigmas vary in shape to suit their needs. In flowers that are pollinated by insects the stigmas are seldom very conspicuous, but in wind-pollinated plants, such as grasses and sedges, they are often long and feathery to enable them to catch any pollen that may happen to be floating by. Frequently, too, the stigma is not terminal, but the stigmatic surface may extend down one side of the pistil. For some interesting examples of stigmas the student may examine the blue flag (Iris), the evening primrose (Oenothera), the poppy (Papaver), the pitcherplant (Sarracenia), the spatterdock (Nuphar), and the lily. The principal office of the style seems to be to hold the stigma in the proper position for pollination. In some cases it is very long as in Indian corn where each strand of the "corn-silk" is a single style. Ordinarily the style grows from the top of the ovary, but occasionally it is produced at the side and in the mint family it grows from the base.

In five-parted flowers there should be at least five pistils but it is seldom that a flower contains this number of separate pistils. Examples of this, however, may be seen in the flowers of columbine (Aquilegia) and live-forever (Sedum telephium). There are often less than five, as in the cherry, joined together. There are various ways, where others are supposed to be suppressed, but more frequently what at first sight appears to be a single pistil consists of the original number joined together. There are various ways of ascertaining whether this is so or not. In a compound pistil there is usually a little ridge where each pistil joins the others and along which the seed pod opens, later as in the violet and pansy. Often only the ovaries are consolidated as in the St. John's-wort. (This is a common yellow flowered shrub that blooms all summer in the flat-woods of Florida. Ed.) When the styles and stigmas show the number of pistils. When the style and stigmas also, are united, the compound stigma usually has as many lobes as there are pistils. By cutting through a compound ovary one can usually decide how many pistils have been consolidated by counting the number of cells, each cell, of course, representing a single pistil. Thus in the Anemone, a three-part flower, what appears to be a single pistil is really composed of three. In a few cases, however, the consolidation has gone so far that the partitions in the ovary have disappeared. The consolidation of the pistils always begins at the base. The ovary may be compound and the styles and stigmas separate, but these latter are never united unless the ovary is, also. Among flowers with compound pistils may be mentioned the lilies, evening primroses, and oxalis.

The pistils, whether simple or united, are likely to be few in number—usually five or less in five-parted flowers. In some species, however, the number is greatly increased, as in the strawberry where there are a large number collected in a conical head which forms the berry. Other examples may be found in the buttercup, anemone and clematis. In the tulip-tree (Liriodendron) and the Magnolias, the pistils are arranged in a spiral, forming a sort of cone, while in the poppy the numerous pistils are in a circle and united.

This concludes the second lesson as given in the Botanist. Does it seem very dry work to you? The foundation of a beautiful building is often of course, rough material, but it is a necessary part of the structure. So in the study of Botany the preliminaries are dry and tedious, but they are absolutely necessary. Both the lessons already given and several that will follow should be learned and then the papers carefully preserved for future reference. Probably it will not seem interesting until we begin to study the flowers themselves. We shall get to it as fast as possible, but the foundation must be laid first. If it is not a substantial one the superstructure will not be of any value.

Parcel Post.

Some prominent and prosperous business man said that the secret of success was to "Keep everlastingly at it." If this be true, and we have no reason to doubt it, then the agricultural press of the country must, eventually, win in the contest for a parcels post. Indeed, the pressure for a parcels post is not confined to the agricultural papers.

A subscriber has just sent us a clipping from a literary magazine. The article is an excellent one and was credited to The Philistine. One great economic betterment that thinking people in America are asking for is the parcel post.

What is the parcel post? It is an extension of the business of the postoffice department so that all business now done by express companies shall be done by the postoffice department. Gradually the postoffice department in all civilized countries has grown until it is now the best example we can name of a socialistic betterment. It works for all, and no matter how rich or how influential you are you can not buy stamps at a discount. With the express companies, however, it is different—if you know how, you can participate in the perquisites. Express rates are arbitrary, changeable and very often towns that are on the line of the American Express one day, awake the next morning to

find themselves sold out to the Wells Fargo. Places we once could send packages to at a single rate now require a double.

There is not a civilized country on earth that divides up its postoffice business with express companies as we do.

No one thinks of asking for free postage, but many of its use express firms—possibly this through a little light on our opposition to the parcel post.

Things sent by registered mail are safer than if sent by express, because the penalty for rifling mail is much more severe than for appropriating express matter. You can monkey with Tom Platt, but you can not play the same game with your Uncle Samuel.

We now have a postal treaty with Belgium which allows that country to mail packages to the United States at a less rate than we can send packages for at home. Moreover, the limit in weight of the package is twenty pounds, not four. So you save really have the parcel post now, but to avail ourselves of it we have to go over to Belgium to mail our packages.

When John Wamamaker, the man who inaugurated the parcel post, and the greatest merchant of his time, was postmaster-general of the United States, he was asked his opinion of the parcel post. "Splendid," was his reply, "splendid—I wish I might have it here." "Well, Mr. Wamamaker, why can not you inaugurate it?" "Oh, who are these insurmountable obstacles?" "Will you name them, please?" "First there is the American Express Co.; second, the United States Express Co.; third, the Adams Express Co.; fourth, the Wells Fargo Express Co.; fifth, the Southern Express Co."

Farmers everywhere may fear for the parcel post. SIXTY per cent of our population lives in cities of less than 5000 and under. Sixty per cent of our population is urban or suburban. We want the parcel post.

Tom Platt plays Mandrola and keeps the stage waiting while he struffs his woaded skin. Soon Tom Platt will be consigned to Limbo—he blocks the gangway.

Express companies practically serve only one-third of the people. The rest of us they prey upon.

The rural free delivery has educated the party that inaugurated it. Every good thing begins as something else, and no one seemed to anticipate the R. F. D. would be an oldest lesson in applied socialism.

No sooner had the rural carriers commenced their tasks of carrying mail than the people along their routes began asking them to do errands. Instead of forty farmers going to town to buy forty spoons of thread, one man, the mail carrier, with his little wagon, did the business. This useful servant of Uncle Sam besides carrying letters and newspapers, carried telegrams, thread, binder twine, sugar and snags of flour. In many instances his business increased so that he drove two horses instead of one, and had a wagon that could carry a ton.

All he officially had to do was to get over his route within a certain time and deliver and gather his mail. Beyond this the department made no restrictions.

But soon the express companies saw what he was doing. Sears, Roebuck & Co. shipped him goods by freight and he parcelled them out along his route. The express companies and the local merchants combined and complaints were lodged with the postoffice department.

An order was issued that carriers should not carry packages that were eligible to mail unless such packages were stamped.

This cut out all packages that weighed four pounds or less—all such had to be stamped. But the carriers still carried bags of flour, dogs, knives, and occasionally led horses. They also carried telegrams, but on each placed a two-cent stamp, making it a letter.

But behold, on July 1, 1904, an order went out that no carrier should carry anything that was not strictly mail matter.

Then the farmers howled, and they will howl more. They will howl until they get their parcel post.

Why shouldn't the carriers serve the people by carrying anything the people need or want? And nobody can tell why excepting Tommy Mephisto Platt and the local merchants.

But many of the local merchants realize that the R. F. D. is a good thing for them. The carrier used to bring them many orders and in various ways served them by delivering goods to their customers. That leaves Tom Platt alone a kicker against the parcel post.

What good are the express companies? None at all. Everything they do and every service they render could be done safer, better and one-half cheaper by the postoffice department.

The political parties can give us the parcel post. They must and will in pure self-defense, if for no other reason. Political parties, like department stores, carry goods the people want. We want the parcel post and want it badly.

Value of Millet as a Forage Crop.

If you find that you are likely to be short of hay, it is not too late to grow a crop of millet. On good soil it will make from three to four tons of hay per acre. If cut at the proper time and well cured there is no better hay. The New England Farmer publishes an article about millet as follows:

Too many farmers are still ignorant of the great value of millet as a forage crop. I would as soon think of farming without raising grass and hay as to try to get along through the year without putting in a crop of millet. Under present conditions the dairy farmer especially needs to try to grow all the good cow food possible on his own land. The man who always brings back a load of grain from the village every time he carries his milk to the creamery must be doing an extra good business if he can pay for the grain and have anything left as profit. There may be farms so well adapted to the growth of hay that not much plowing need be done for annual crops like corn

millet, roots, etc., but such farms are the exception rather than the rule. There is a great deal of light land in New England that is better adapted to corn than to permanent mowing. All such land is suitable to the growth of millet. Both corn and millet are worth more to farmers in the southern half of New England than to those of the more northern portion where oats and barley thrive with little danger from rust and other diseases. But millet often does well quite far North, and its value is gradually becoming better known. One great advantage of this crop is in the short time required for its growth. Like corn it is a hot weather plant and does not derive when sown early in the season before the soil and weather become warm. The first of June is early enough to sow it any year, and in Southern New England it will make a full crop put in a month or six weeks later. I have sown it in August but that is too late unless the weather continues warm later than usual. When from injury to the hay crop on account of drought, one finds that fodder is going to be scarce and high in price, then it is that millet will prove of most value, for any good plow land turned over after removing the hay in June will produce a full crop of millet if the work of preparation is well done. The earlier the grass is cut in June, the better. Then the land should be plowed immediately, seeing to it that the after-cultivation with harrow or cultivator will not disturb the grass side of the inverted turf. The cultivation ought to be very thorough so as to make the very best seed bed possible. At the same time manure or fertilizer should be applied in sufficient quantity to fully feed the expected crop. Less manure is needed than for land to be kept in grass for a number of years, but it would be a waste of time and money to sow millet on land too poor for producing a crop. Much depends on getting a quick, thrifty growth at the start, and for that reason manure that is partially rotted down and finely pulverized is much to be preferred over that drawn direct from the stable.

As time is valuable at this season, and especially for such quick growing crops, fertilizer that can be applied in much less time than manure comes in particularly well in raising millet. The quality will depend upon the character and strength of the land. I have generally used from 800 to 1,000 pounds to the acre on land of fair quality. Although millet grows quick it is a heavy feeder of available fertility. The quicker a crop grows the faster it has to feed.

I would not expect rye or wheat sown directly after harvesting a heavy crop of millet would make a very vigorous start unless the land were treated to another dose of manure or fertilizer. Millet is a good crop for smothering weeds in fields where they would grow in midsummer if not disturbed. The crop grows so rank that weeds have no show whatever. For this reason millet is entirely unfit to sow in connection with grass seed for permanent mowing or pasture. The season of millet is also the poorest in the year for sowing grass seed. I have never grown the new Japan millet but have seen it growing and have noticed that cattle eat it with great relish. I think it may be preferred to some of the older varieties, though they are all valuable in their place. The large German or Golden millet produces very heavily on good land and, although quite coarse, is well liked by cattle especially in winter when well cured as hay. When stout it is a hard crop to cut with scythe or machine, but it is well worth the extra effort. It is of little use to hurry the drying of millet the day it is cut. It is heavy to handle and may well be exposed till much of the sap has evaporated out through the leaves. I would not put it into cocks till it had lost much of its weight. Then I would keep the felder moving it and hasten the drying as fast as possible. A coarse, heavy crop will cure considerably in the mow without heating enough to do harm. From eight to twelve quarts of seed is usually sown to the acre if the crop is to be grown for the seed, but for hay a bushel may not be too much. It should be cut for hay when in bloom and before seed forms. I have always valued millet equally with ordinary mixed upland hay, as I find that cattle eat it as well as they do such hay. If allowed to ripen seed it is said not to be good for horses as they do not grind the seed as it should be for good digestion. I never fed it largely to horses as I never had more than the other stock needed. There is always time for growing a crop of millet after rye is cut green for feeding in May or early June, after oats sown early and cut for fodder the first of July, after a crop of early peas and after an early hay crop. It will be out of the way in season for sowing rye, wheat and sometimes grass for mowing or pasture.

In order to give our readers an idea of the popularity of millet as a hay crop we copy two more articles on the subject. The next one is from the Farmer's Guide.

The various varieties of millets are now being grown to considerable extent in many sections of the country. They offer the farmer certain advantages which can not be gained from other crops. As a summer catch crop for the production of hay, millet is admirably adapted to conditions in this section. It also offers advantages in the way of furnishing a covering for the ground during summer and at the same time may yield the grower profitable returns as a hay or seed crop. There are three distinct groups of millets which are now grown in this country. The commonest and perhaps the most important of these groups is known by the general term of foxtail millets and includes the common millet, Hungarian millet and German millet. The other groups comprise the brown-corn millets and those known as Japanese millets, and while not at present so widely grown as the former they are daily coming into more general favor, especially where the growing seasons are short and greater drought-resisting qualities are desired. Under ordinary conditions, however, one of the foxtail varieties, we believe,

will give fully as good, if not better, results in Indiana than either the brown-corn or Japanese varieties. Personally we prefer either the common or Hungarian varieties. We have had the best success with those when grown for a hay crop. In case a seed crop is desired we can not state which kind is the best, as we have never had any experience with millet for this purpose, but we can see no reason why results in seed production should be very different from that of hay. Either variety will produce a heavy crop of hay under favorable soil and climate conditions. The Hungarian variety is usually thought to give slightly the largest yields of hay, but there is little difference experienced in yield of seed. These were the first varieties of millet to be introduced into this country and where this class of grass is wanted one can make no mistake in selecting either of them.

The seeding of millet may take place any time after the ground becomes thoroughly warmed. It usually requires about one hundred days for millets to mature seed in this latitude, of course, the exact time of sowing may be governed by the use to which the crop is to be put. If a seed crop is sought, the last of May or the very first of June should be the time; if hay or soiling is the object a few weeks may do as well. As with other crops, the preparation of the soil should be as thorough as possible. That is the seed bed needs to be of a fine tilth, but not firmly compacted, as a loose and porous soil is much the best. Millets like best a soil of medium loam, neither too clayey nor too sandy, and possessed of fair fertility. The plants are surface feeders and the more plant food found in the surface soil the better for the crop.

The amount of seed to sow per acre depends somewhat upon both the manner of seeding and the use to which the crop is to be put. When grown for hay it may either be sown broadcast or drilled, and a half-bushel or a trifle less seed will be required. If a seed crop is the object, about half as much seed is used, or if drilled in rows which admit cultivation, as is practiced in some sections, even a less amount of seed is needed. Seed from rather thin seedlings is usually plumper and of better appearance than seed from more thickly sowed fields. For hay millet should be cut before fully matured, as the quality is firmer and more relished by stock. It can be cut any time after blooming, but it is best to wait until the heads are fairly well advanced. For seed the crop is harvested when in the dough stage.

If July is early enough to sow millet in the Northern states, then August or even September will do very well in Florida. The Mirror and Farmer says:

It is not too late to sow millet for a forage crop and add materially to the supply of cattle food. It is a hot weather plant and requires not more than sixty days in which to sufficiently mature for feeding purposes. There are several varieties differing in form, to some extent, but perhaps the Japanese millet is grown more extensively than any other. By cutting the grass on land before the 10th of July it may be plowed and safely sown to this crop. The millet crop seems to have a good effect upon the physical condition of the soil by its vigorous roots penetrating it in all directions, although this is mainly confined to the top of the ground, as it is a surface feeder. It seems to have great effect in eradicating chess grass, as growing a single crop has been known to almost destroy it. This may be partially due to the vigorous cultivation of the land in hot weather, in preparing the seed bed, but more to the effect of the rank growth which the millet roots make. About a half-bushel of seed should be sown broadcast and the crop should be cut before the seed forms. From two to three tons of the best of cured fodder can be grown per acre upon land in fairly good condition. Any one who has had experience growing millet is sure to continue growing it, for its yield under good conditions and its feeding value can only be appreciated by a trial.

Making Silage in Florida.

If any of you have had doubts about the use of ensilage in Florida, you can have them put to rest by reading the report of a Florida farmer as published in the Rural New Yorker:

I have been feeding silage for the past 18 years, and have had no trouble in preserving it. I am now using two underground silos, with a combined capacity of 165 tons. I have tried several different crops for filling, such as cow peas, velvet beans, and kafir-corn. They all kept well and made a fair quality of silage, but I think that in point of economy and quality of feed, there is nothing to compare with fodder corn. The corn should be cut when the grain begins to glaze, or as our Southern farmers will understand best, when the fodder is ready to pull, which should be about the last of July or first of August. However, it is seldom that we can wait quite this late, as the corn begins to dry, and unless there is sufficient rain to keep the lower leaves green there will be more loss than gain by waiting. So-called in a very dry season we have to cut before the corn quite reaches the roasting ear stage. There is but one special precaution necessary to keep silage in this or any other climate, and that is to pack thoroughly, and if your silo be square, special care must be taken in packing the sides, ends and corners.

I have never fed silage later than July 15, though I see no reason why it should not keep all summer. However, we do not need silage here after June 1, as there are so many green crops that can be fed direct from the field. I do not consider that there is any room for comparison between silage and dry fodder for this locality, as owing to our uncertain climate it is impractical to shock our corn.

R. F. BRADFORD, Leon Co., Florida.

Before we rail at the public press about their stories of adulterated honey it will be well for us to clean our own Augean Stables.