The Farmers' Forum

EDITED BY J. N. BIGHAM.

More Corn Is One Of Our Needs

In conversation with a prominent farmer of the county the other day he said he intended to try to make more corn this season than he did last year. We believe this is the intention of most farmers of the South, whether the intention is expressed or not. For the past 40 years there has been a too great a tendency on the part of the farmers to depend on purchased food for both the family and the stock on the farm. This on its very face is putting the farmer at a great disadvantage The farmer who neglects to produce the greater part of his food supplies is voluntarily making himself a victim o fthe high cost of living. On the other nand the farmer who grows his own suppiles is to a certain extent independent of the high cost of living. This does not mean that it is necessary for the farmer to abandon any one of the staple crops of the farm, but it does mean that there should be a proper division of crops so as to maintain comparative independence on the farm. Back in the nineties when Mr. McDonald was cotton statistician for the county, he told us, when traveling over the country that he had seen some instances where the farmer's garden was planted to cotton. But that was then, not now. We believe it is the concensus of opinion among the farmers of the South as in the case cited in the beginning of this article, to produce more corn and to adjust his farm management so as to put the far mon a more self-supporting basis. However, the lure of high-priced cotton is strong and may in many instances direct a line of practice at variance with the suggestion outlined above. As Von Moltke used to say: "Consider, then venture."

Insect Enemies Of Cantaloupes, And Related Plants

(By R. I. Smith, Entomologist.)

Successful, profitable growing of cantaloupes, melons, summer squash and cucumbers is frequently rendered extremely difficult, or prevented by the presence of destructive insects. The list includes nearly a score of different species which may at times become troublesome, although the chief damage is caused by only a few principal offenders, such as cut worms, striped cucumber beetles, squash bugs, melon lice, squash vine borers, and the so-called melon worms. The latter destroy the half-grown or maturing fruit and the opening leaf and blossom buds while the others mentioned prevent or hinder proper growth and development of the plants from the time they commence growth. Truck growers who raise cucurbit crops for market have been forced to learn and practice methods for preventing or controlling these insects in order to obtain remunerative returns for their labor; farmers and amateu gardeners, attempting to raise these crops for home consumption, are too often inclined to give but slight attention to the insect pests, seeming to consider the resulting injury unavoidable, as many look upon the house-fly and mosquito nuisance. Twenty years ago such an attitude toward insect depredations was somewhat pardonable; but, considering the information now obtainable, failure to wage an intelligent warfare against insects becomes less excusable, and virtually an offense against others in a community who do exert their energies reducing the annual loss.

Deep spring plowing of gardens or fields where cucurbits have grown is advisable, when such land has been left untouched all winter. This serves to bury the pupae so deep that they can not work their way to the surface. Shallow plowing, only three or four inches deep, does not answer this purpose.

Rotation of crops is of some value. It is not advisable to plant cucurbits on land that has borne infested plants during the preceding season.

Remove Borers.

Squash vine borers may be detected by the accumulations of yellowish excrement on or around the stems of infested plants. During June this is often quite noticeable, and, when detected, the borers should be searched for and removed.

Melon Worms.

Annual injury to cantaloupes, cucumbers, squash, and other curcubits to some extent, is caused by worms that bore holes in the young or maturing fruit, feed on the buds, blooms and foliage, and even burrow in the vines when blooms and fruit becomes scarce. Such damage throughout North Carolina is caused by two species, one generally known as the pickle worm and the other called the melon worm. They differ in appearance and habits, but in many respects their work is so much the same that farmers do not, as a rule distinguish one from the other. During some seasons the pickle worms may be more abundant than the melon worms, or vice versa. At any rate, it seems best to mention them separately.

Pickle Worm.

(Margaronia nitidalis, Cramer.)

Other names, snch as cantaloupe worm and melon worm, may be equally appropriate; but since the term pickle worm was first used for this species, the writer will consider it as such. eBsides, the term melon worm is now applied to a closely related form.

Description and Habits.

Parent Moths.—The parent of the pickle worm is a nightflying moth of rather distinctive appearance. The general color, viewed from above, is yellowish brown. The front wings bear a yellowish, semi-hyaline spot near the center, and the hind wings have the inner two-thirds of the same appearance. The abdomen terminates in a large movable brush composed of numerous elongated scales. Quaintance states that the brush of the female moth is smaller and the individual scales flatter and more curved than in the male. In size the moths have a wing expanse of a little over one inch, while the body averages about five-eighths of an inch from the tip of the head to the end of the brush. The shy, retiring habits of these moths prevent their being often observed, for they seldom fly in the daytime, unless disturbed, and then quickly attempt to hide. In this respect they differ from the melon worm moths, which are often seen flying about cucurbit fields during August or September.

Eggs.—Freshly laid eggs are white, but soon turn yellowish, as the larvae inside develop. They may be laid singly, but more commonly in clusters of from three to eight, on bloom buds, leaf stalks, or leaves, and are usually attached to the plant hairs in such a manner that the egg mass seems to be pierced by the hair. The eggs hatch in warm weather in about four days.

Larvae.—Very young larvae are uniformly yellowish white, but after a few days the body segments show transverse rows of brown spots, which become moer prominent and nearly black in color before the fourth molt is passed Larvae molt four times before attaining full growth, and their distinctive marking, previous to the fourth molt, enables one to separate them readily from the related species called the melon worm. After the fourth molt pickle worms become great ly changed in appearance by practically losing the transverse blackish spots. Full-grown worms are yellowish or greenish in color, depending somewhat on the food supply. Just before pupating many worms assume a dull copper color above, although some do not change. Their length depends entirely on whether they are crawling, resting or contracted, as when disturbed; hence this measurement may vary from five-eighths to one inch and a quarter. Pickle worms feed in bud clusters, blooms or fruit and often in the vines, but seldom feed, like melon worms, on the foliage.

Pupae and Cocoons.—Pupae are nearly three-fourths of an inch long and are of a shiny brown color. The head end is rather blunt, while the caudal end ish sharply pointed and bears a group of curled spines that serve to hold the pupae in their cocoons.

The cocoon is a thin, scanty covering of white silken threads, spun by the worm in a fold of some leaf before transforming to the pupal stage. They are generally found in dead or dying leaves near the ground, or lying on the soil under the infested plants.

Life History.

Winter Stage.—Pickle worms pass the winter in the pupal stage, above ground, and unprotected, except for the thin cocoon and its enveloping leaf, as already described, or such vegetation as happens to fall over and around them. For this reason the practice of raking up and burning or composting remnants of infested crops, followed by deep plowing, is of value.

Earliest Appearance. — Fortunately for cucurbit growers, pickle worm moths do not emerge from the overwintering pupae until late spring or early summer, thus allowing time for an early crop to mature before the worms become troublesome. Around Raleigh, in 1909, the first generation of wodms matured about July 30, showin gthat the moths which laid eggs must have been present in June. In eastern North Carolina, where pickle worm injury commences earlier than it does here, the moths must appear the latter part of May. It is thought that rainy springs bring them out earlier.

Life Cycle.—The average time required for the full development of a generation in the vicinity of Raleigh was determined by the writer, in 1909, as 27 or 28 days. This record was obtained during August and September. Eggs require about four days to hatch, larvae take about 15 days to mature, and the pupae transfor mto moths after eight or nine days. This represents the normal rate of development for warm weather, but during October and November, under the influence of cooler weather and scarcity of food, the growth is retarded.

Generations.—During favorable seasons four or five generations may develop, provided the moths appear early in the summer; but it is doubtful if more than four full generations occur normally. This point could not be accurately ascertained by the writer last season, and has not as yet been determined by any investigator.

Remedial Measures.

Early plantings of cantaloupes and cucumbers may escape injury from this pest, owing to the late appearance of the moths, as already explained. If the complaint is heard from growers who raise early crops for market, but when the harvest comes during July or August serious damage may be expected. No absolute remedy is known; still, a large proportion of the annual loss small squash.Their partiality to squash as a trap plant, clean culture and deep plowing, and possibly by poisons.

Trap Plants.—Pickle worms evince a decided preference for the buds, blooms and fruit of summer squash, tracted by the large plants and blooms, which afford abundant food for the worms. A single squash bloom may be inhabited by two or three large pickle worms, or a greater number of young ones, and several may mature in a smal squash. Their partiality to squash blooms was observed in Georgia during 1898 by Quaintance, who at that time strongly recommended squash as a trap plant, and later published records of a field experiment showing that an acre of cantaloupes were almost completely protected by a few rows of summer squash. During the summer of 1909 the writer had an opportunity to verify Quaintance's recommendation, and he now believes that this practice is more valuable than any other single remedial measure.

To secure the best results, seed should be planted two or three times at intervals of about three weeks, making the first planting in time to insure having the squash plants blooming freely by the middle or latter part of June. They must then be examined frequently, and, when worms are discovered, infested blooms and fruit should be gathered and destroyed at least once a week to prevent the larvae from maturing, thus reducing the numbers of the second generation, while protecting the main crop in the meantime. Failure to collect the worms results in an increase of the second and third generations; but in case no attempt is made to gather them their presence on the squash plants show the main crop of cantaloupes or cucumbers is being protected.

Some readers may believe that squash and cantaloupes or cucumbers will cross-pollinate, thus rendering the latter of poor quality; but this is seldom true, although seed for the following year should not be used from any crop grown under such conditions.

Destroying Infested Plants and Fruit.—All infested fruit should be gathered and fed to hogs or otherwise destroyed to kill the larvae within. If thrown aside, as is frequently done, the worms contained therein may mature and change to moths. If trap plants become very badly infested they should be pulled up and destroyed by composting; and the same is true of the main crops.

As soon as a cucurbit crop is matured and gathered, rake up and destroy the vines, together with all weeds and trash, to kill the larvae and pupae that may be present. The compost heap is advocated, except when plants have been attacked by some fungus disease, in which case burning would be better.

Deep Plowing and Rotation.—Turning the land by deep plowing immediately after a crop is gathered, or else in late fall, or even in spring, will serve to bury some of the pickle worm pupae which are left on the land and would otherwise transform to moths.

It is not advisable to plant cucurbits on land which has borne infested plants the previous season, although the pickle worm moths fly for considerable distances, rendering rotation by no means a certain preventive measure.

Poisons.—Poisons are mentioned last because, in the writer's opinion, they are of little value against pickle worms. Poison dusts or sprays applied to trap plants, or even the main crop, may serve to catch some young larvae that feed on the leaf buds or unopened blooms, especially when plants are badly infested; but the practice can not be recommended, except when melon worms are present. The latter may be poisoned because of their habit of feeding on the foliage, as explained in the following:

Melon Worm.

(Diaphania hyalinata, Linn.)

During the season of 1909 melon worms were present in the vicinity of Raleigh, in numbers nearly equaling the pickle worms, but appeared too late to injure cantaloupes that matured before the middle of July. During September and October they were abundant in late squash cucumbers. Concerning the usual number of melon worms, the writer has no data to serve for comparison with the pickle worm injury, but from personal observation during the past two summers, he believes that the former are of least imporaance.However, all truckers and farmers should know and understand the habits of both species. Melon worms are considered to be a more strictly Southern form, and they certainly ocur in greater numbers in Florida and Georgia than in North Carolina.

Description and Habits.

Parent Moths.—Melon worm moths are beautiful creatures, which may often be seen flying about cucurbit fields during the late fall months. They have wings of a pearly white color, bordered with brownish black. The abdomen is also pearly white, tinged with brown at the caudal end, which terminates in a large movable brush of elongated yellow and dark-brown scales. Nearly all the underside of the body, including the legs, is of the same color as the wings. The wings expand one inch, or a little more. The moths, although shy and rapid fliers, are frequently seen during the day time.

Eggs.—These are pearly white in color, very small in size, and are laid in groups of from two to six or more on the stems, leaves and buds, but are seldom attached to the plant hairs, like the eggs of the pickle worm moths. The eggs vary in shape by being crowded against each other, usually overlapping. They hatch in about four days in warm weather.

Larvae.—Just hatched larvae are about a twenty-fifth of an inch long, with a pale brown head, and body of a pale yellow color, with no distinct marking. At about three days of age the skin is molted for the first time, and then the body shows two faint longitudinal sub-dorsal white stripes, which become more prominent as the larvae develop. By these two white stripes melon worms may be readily distinguished from the pickle worms until they are nearly grown. After the fourth molt, but not until two or three days before the worms transform to pupae, these white stripes nearly disappear, after which melon worms do not differ much from full-grown pickle worms, except in possessing finer, shorter hairs and usually a more slender body. Full-grown melon worms may measure an inch and a quarter when crawling.

These worms often feed for their entire lifetime on the foliage, remaining on the underside partially concealed by thin silken webs. They also feed on the terminal bad clusters, and bore into melons and squash like the pickle worms. The habit of feeding on the foliage makes it profitable to use poison sprays as a remedy, and in this respect they are more easily controlled than pickle worms.

Cocoons and Pupae.—Melon worms spin thin silken cocoons in the folded edge of some leaf, like the pickle worms, but differ from the latter in being inclined to select a green leaf rather than a dying one. When the food plants are nearly defoliated the worms crawl to nearby weeds or grass and there spin cocoons and pupate.

The pupae are about three-fourths of an inch long and brown in color. Compared with the pickle worm pupae, they are rather more slender and have a more sharply pointed head.

Life History.

Winter Stage.—The winter is passed in the pupal stage like the pickle worms, and under practically the same conditions. Some people think that the moths emerging very late in the fall may live over winter, but the writer doubts if this ever ocurs in North Carolina.

Earliest Appearance.—Moths do not emerge from over wintering pupae until June or July. Around Raleigh, in 1909, they were not observed in the fields until about August first, although a few must have been present fully a month earlier because nearly mature worms were discovered on August 5th. Rainy seasons bring the moths out early, comparatively; but, ordinarily, they are not seen before the latter part of June, which is rather later than the first appearance of pickle worm moths.

Life Cycle.—The average life cycle from egg to adult, as determined by the writer during August and September, 1909, was practically 28 days. It was found that eggs hatch in four days, and larvae, mature in about 16 days, while the pupal stage lasts an average of only eight days. Thus it appears that pickle worms and melon worms develop in practically the same time.

Generations.—No accurate record is available concerning the number of generations, although there must be four each season when the moths appear as early as June; but during some seasons, particularly in the northern and western sections of the state, the fourth generation may not occur. Fortunately for truck growers, a crop of early cantaloupes, squash or cucumbers may ordinarily be grown before the worms become troublesome.

Remedial Measures.

Because of feeding freely on the foliage, melon worms may be poisoned with arsenical sprays, and the additional methods suggested for controlling pickle worms are equally applicable to this species, with the exception of squash blooms as a trap. Melon worms do not prefer squash blooms, although sometimes found feeding in such situations; but they do undoubtedly love to feed on squash foliage and fruit, so that when this plant is used as suggested on page 32, to trap the pickle worms, spraying with some arsenical mixture, such as three pounds of arsenate of lead or one-half pound of Paris green in 50 gallons of water, applied especially to the undersidc of the leaves, will serve to poison melon worms which are present. The trap plants are thus made to serve a double purpose.

Supplementing the poisoning method the complete removal and destruction of badly infested trap plants, badly infested fruit of all cucurbits, and remnants of infested crops, together with the pracitce of deep plowing and rotation, should suffice to prevent serious damage from melon worms.

FARMERS' PROBLEMS.

I.

Here are some population statistics of interest to all Farm Journal readers: The population of the earth is slightly more than 1,900,000,000, an increase of 140,000,000 in the past four years, according to the bureau of Universal statistics which has just announced its figures for 1912. Asia now has 933,000,000; Europe, 484,000,000; Africa, 188,000,000; America, 187,000,000; Oceania, 57,000,000. According to these figures the population of the world is increasing at the rate of 35,000,000 a year, an increase several millions greater in number than the entire population of the United States at the beginning of the civil war, and even then folks were talking about our congested condition, especially in the eastern cities.

II.

Here is a farmers' problem of immense importance, for the 35,000,000 annually added to the already great population must be fed and clothed, and both food and clothing must come from the soil and from nowhere else. Moreover, as intercommunication constantly draws the kingdoms of the world closer together, there is coming to be less difference in living Nations no longer face gaunt famine as in other times; besides, the standards of living are being raised all over the world, and therefore it requires much more to feed and clothe the race today than it did fifty years ago. Thus we may readily understand the tremendous impetus the increase in population and the demand for better living must necessarily give to the ancient art of husbandry, the source not only of our existence but the foundation of all wealth.

III.

It must be borne in mind, also, that while the population of the earth is steadily increasing, its area remains the same, and therefore the prblem of feeding the world becomes every day more serious. In view of these facts, it is folly to refer to agriculture as though it were a declining industry, and to the farmer as a back number, and equally unwise to decry intensive tillage and the reclamation of the waste places as disastrous to the interests of agriculture. Assuming the correctness of the long-established theory that each person consumes a barrel of flour per year, it requires very little calculation to show that there is an annually increasing demand for 200,000,000 bushels of wheat above the needs of each previous year, and as the total yield of this cereal last year was 3,333,000,000 bushels, and as there were then 1,900,000,000 mouths to feed, it is manifest that a considerable portion of the race is forced to subsist upon black bread or rice.

IV.

Along the line of greater production by intensive methods is the following observation from a Pennsylvania reader of Farm Journal: "When I see the good limestone farms that lie in the Juniata valley, and note that the average wheat production is from fifteen to twenty-five bushels per acre, I get disgusted, and I think the some holds good in other parts of the stte. Some years ago I knew of a four-acre lot that yielded 204 bushels, and later I knew of a twenty-acre field that yielded 1,000 bushels, and when that has and can be done, why be content with fifteen to twenty-five? I think the wheat product could be doubled with proper care and the use of proper fertilizers." But there are many difficulties in the way of the production of phenomenal crops. The man who succeeded in raising 255 bushels of corn on one acre applied to the land $300 worth of fertilizer, and as the market value of his yield was about $125, it can readily be seen that such intensive tillage is out of the question unless by means of this lavish application of fertilizers the land is permanently enriched.

V.

However, there is no doubt that our Pennsylvania friend is on the right track. There is no valid reason why the yield per acre if wheat and corn can not profitably be doubled under present conditions, while leaving to the future the working out of a method by which 100 bushels of wheat and 300 of corn to the acre may be grown with profit to the producer. It is certain that we are by no means at the end of our resources, in spite of a good deal of talk about worn-out land. It is incredible that the rich soil of the limestone regions in the eastern states, and the black soil of the prairies of the middle West, which were thousands of years in the making, should be exhausted by a century or two of tiliage. The agricultural doctors are working in fields that are, for the most part, entirely unexplored: and since it is impossible that we have reached the very pinnacle of discovery, it is not unreasonable to conclude that a means of growing two blades of grass where but one has grown before without quadrupling the cost of production will be discovered. This discovery may come in the form of tabloid fertilizers, or in more scientific methods of culture, or in some other way that will be economical and profitable and that will prove that Mother Earth never fails to respond to kindly treatment.

VI.

But all these things wait upon better remuneration. A good many people seem to believe that the primal anathema, "cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life." pronounced against the first man, follows the keeper of the garden and the tiller of the fields to this day. At all events, there is abroad too much of a disposition to deny a living wage to the class which keeps the race alive. It has been estimated that the average farm income in this country where agriculture is regarded as exceedingly prosperous, is something less than $700 a year, which is considerably less than that of many classes of artisans whose hours of labor are half those of the farmer. In any analysis of the causes which urge the young men to desert the farm, the matter of monetary compensation must be considered as among the most important, and in the present hue and cry against the high cost of living, the attempt to place the chief responsibility upon the farmer is, in view of the facts, most cruel and unjust.

VII.

The farmers' inability to secure a just redress of their grievances lies in their lack of solidarity. The miners are a compact organization, and standing or falling together their demands for wage adjustments have weight, and the same is true of the railroad men and of trade union men generally; but the lone ranchers and the millions of outlying farmers find it physically impossible to join for mutual protection and defense, and as a result of this lack of cohesion they are at the mercy of grain gamblers, middlemen's associations and all sorts of combinations. Sometimes it is possible in a small, compact country like Denmark, where agriculture is wisely fostered by the government, for the farmers to work together for the common good; but in our vast domain, with its greatly diversified agricultural interests, a successful working agreement is well-nigh impossible, or at least it has been hitherto; and until there shall have been established a close community of interest among the farmers they must continue to hold the short end of the stock.

VIII.

As one of Our Folks puts it, "due to scarcity of help, the insect problem, the weather and many other things too numerous to mention, the farmer is on his nerve most of the time, working early and late to bring about results in the best way, and so to make both ends meet. The farm organizations are not doing for the farmers all they ought to do. Why can't they at least start a farmers' feed and grain store in each town throughout the country, each farmer doing his financial part to establish such a place and thus buy direct and save the vast profit they are paying each year to our local dealers for feed and seed grains? It would be a great saving to the farmers. I know there is ag reat deal of self-denial both in the house and out of it to pay the large grain bills, and I wish the farmers would establish grain and feed stores and refuse to buy otherwise. The farm papers are always telling the farmer how to raise more produce, but what they do produce they don't know how to sell to their advantage."

IX.

Farmers everywhere are seeking not only direct methods of selling their products, but also closer contact with the markets in which they buy. Along the line of the latter, a successful farmers' purchasing agency has been developed in Southwestern Pennsylvania. The king-pin of the plan is the order form bill of lading. This is negotiable, represents ownership of the property and must be surrendered (properly indorsed) to the railroad before the property will be delivered. Long in advance of the time when certain farm supplies will be needed, the wholesale markets are searched for the highest quality of such supplies, it being the theory that good service is necessarily connected with high quality. Regular quotations of grades, prices, etc., are then mailed to each member of the exchange, sometime in advance of the time when the supplies will be needed. Members are divided into groups, a common railroad station being the nucleus. Such groups are advised that if they wish to assemble their orders for a certain kind of material, they must have the orders and money in a certain bank at or before a certain time. In order to secure a reduction in freight rates it is necessary that the entire shipment be made upon a single bill of lading. The exchange handles no money except the dues, and is without authority to make any contract or of buying any supplies except for cash in its hands.

X.

An essential aid to thep rosperity of the farmer is better roads. The bill lately introduced into congress for the appropriation of $25,000,000 for highways is unfortunately not so much intended to benefit the farmers as it is to gratify the pleasure seekers. And yet bad roads are the farmer's greatest handicap when it comes to marketing his products. There is probably no subject in which the progressive farmer is more deeply interested than that of having roads connecting him with his markets, over which he may be able to haul the greatest possible load. Good roads like all other good things, are expensive to build and of too much value to be neglected. The office of public roads of the department of agriculture has published a bulletin on "Repair and Maintenance of Highways." This bulletin does not treat the subject of road building, but takes up the repair and care of roads after they are built. All classes of roads, from the natural earth road to the macadam roads with bituminous surfacing, have received attention. The action of automobiles on road surface is explained. This bulletin ought to have a wide distribution, and a limited number are accessible to those who may make application to the office of public roads, the department of agriculture, Washington, D. C., mentioning the title of the bulletin.—Farm Journal.

Farmers Problems

By the time this is in print the young corn and cotton plants will be enjoying the May sunshine, and like a new born babe will need to be carefully nursed and cared for. It will be a time in their long lives when a little care and careful handling will mean much to their success later on. There are many things that may happen to them. They will be tender, and not having cut their teeth (roots) their food must be such as will suit their young lives. Their little bed (the soil) should be very soft (finely pulverized), and their food should be convenient for they must "gum it awhile." There are many enemies that will attack the helpless little fellows. There will be the pestiferous weeds, the cut worms, the black birds, the crows and aphis. These will all want a share, but the farmer will keep a watch out. The weeders and harrows will be going from early morning until dewy eve if need be to keep the little bed (the soil) in good condition, stirring and fluffing the blanket to let in some fresh air and the sunshine to warm up the little feet (roots) and to prevent the packing of the bed so as to allow too much of the liquid food (soil water) to pass into the air. The stirring of the surface will also dislodge the weeds while they are also young and tender. These young plants must be watched and carefully tended if their owners expect them to fruit well and pay for all this trouble. If hard rains come and pack the beds (the soil) the harrows and weeders should be used as soon as the surface is dry enough to stir. If this is not done the air will be shut out, the sunshine can not warm up the bed (the soil), and the soil water will be pumped out through the little ducts of the soil which some big folks call capillaries (whatever that may mean). Then another crop of the pestiferous weeds will be killed. These conditions should be continued until the plants are larger, and then the cultivators will take the place of the harrows and weeders, but they will do the same thing that the other implements did, that is, maintain good conditions in the soil for the plants to grow. We want them to grow, but they must have the right sort of conditions. This sort of treatment will be good for all sorts of young plants. If we study young plants we find they are very much like young animals. At any rate, they must have care. Corn is a thrifty grower when it once gets a good hold in the soil, but it will not do this if conditions are bad. It will not grow if its feet (roots) are wet, nor will it grow among weeds. The weeds are ranker growers and take up too much plant food and shut out too much air and sunshine. As of our field crops like plenty of soil and sunshine. All the plants in the garden need the same sort of treatment and kindly care.

It is taken for granted that good food has been provided, but if not then the plants must be fed (fertilized) occasionally. No one expects a pig to grow without feed, neither should we expect plants to grow without feeding them. Enough potash feed (phosphorous and potassium) and a little nitrogen should have been stirred up in the bed (soil) before the seeds were planted, but it may be that more nitrogen should be given from time to time to promote more vigorous growth.

There are many things we should do along about this time, but I just wanted to talk about one thing. We want to make the very biggest crop of corn this year that old North Carolina ever made, and we can do it if we just try hard enough. It will not be done altogether by giving attention to big things, but giving close attention to some of the little things. It is not the big things that help the most anyway. It is getting in the habit of looking after the little things of life. Some of us farmers want to be doing big things. Just now we want to be talking politics on the Mexican war, but we had better be getting our soil in shape so we can harvest a big crop next fall. Politics will not make our bread nor feed our babies, nor will the Mexican war do it.

E. S. MILLSAPS.

"What can be worse," he asked, "than taking a kiss without asking for it?"

"I don't know?" said the girl, "unless it is asking for a kiss without taking it."—Ladies' Home Journal.

If I held the truth in my hand I would beware of opening it to men.—Fontenelle.