JUNE 8, 1893.

of the state's agriculture. By disseminating this information, and through the Fertilizer Control, the station has saved millions of dollars to the farmers of North Carolina.

The fund for the support of the station is derived from the general gov-ernment, and no appropriation is received by it from the state.

The station desires and needs the Insects Beneficial to Truck and Other active co-operation of all people of the State, for without this co-operation it (GEBALD WCARTET, ENTOMOLOGIST, EXPERIcan do but little effectual and perma-

In order to extend its usesulness, the station will present to the readers of this paper, once each month, three columns of matter of peculiar interest to farmers.

The general subjects embraced in this agricultural matter will be

1. Announcements. 2. Descriptive notes of Station bulle-

3. Summaries of results of investigations at the Station.

4. Letters of inquiry and replies to same 5. Special agricultural articles of general interest.

Letters of inquiry from any person upon any agricultural subject will be encouraged. Replies to same will be made at once by the member of the Station staff most competent to do so in whose special field the question lies All questions must invariably be ad dressed to "The N. C. Agricultural Experiment Station, Raleigh, N. C. Questions and replies of general interest will be also printed in these col

umns for the benefit of all readers.

The bulletins of the Experiment Station are supplied free to those residents of the State who request them. The regular bulletins contain such subjects of immediate interest and subjects o subjects of immediate interest and value, and are written in plain language for popular reading. Technical bulletius are issued also, and contain result of scientific and technical investigations. A list of bulletins already issued which can now be supplied will be printed in these Experiment Station columns for July.

Organization of the Experiment Station. As at present constituted, the staff of the Station includes: H. B. BATTLE, PR. D., Director and State

Chemist. B. S., Agriculturist.
F. E. EMERY. B. S., Agriculturist.
GERALO MCCARTHY, B. SC., Hotunist and Entomologist.
W. F. MASSEY. C. E., Horticulturist.
C. F. VON HERIMANN. Meteorologist.
B. W. KILGORE. M. S., Assistant Chemist.
F. B. CARPENTER. B. S., Assistant Chemist.
R. E. NOBLE. M. SC., Assistant Chemist.
ALEXANDER RHOLES, Assistant Horticulturist.
ROSCOE NUNN. Assistant Meteorologist.
A. F. BOWEN, Secretary.
The Experiment Station has two gen-

The Experiment Station has two general parts, as follows:
A:—The Fertilizer Control Station. B .- The Agricultural Experiment Sta-

In order to facilitate its work, the Station has been classified into
1. Executive Division.
2. Chemical Division.

Agricultural Division. Botanical Division. Entomological Division, Horticultural Division.

Meteorological Division, Division of Publication.

Visitors are cordially welcomed at any time, and the work carefully explained to them. The headquarters of the Station are in the Agricultural Building, immediately north of the Capitol building in Raleigh. In the north wing are located the offices, the chemical laboratories and store-rooms.
On the basement floor is the document room, where are kept the publications of the Station, and where the mailing of these publications takes place. On the third floor is situated the mycological laboratory, botanical and entomo-logical work-tooms: also the meteo-rological division of the Station, organized as the State Weather Service, co-operating with the United States Weather Bureau. On the roof of the building are located the various instru-

building are located the various instru-ments for recording meteorological ob-servations, together with a thirty-five foot flag-staff for displaying flags for disseminating the weather forecasts. The Experiment Farm is located about one mile and a half west of the city, and adjoins the grounds of the State Agricultural Society. It is in close proximity to the grounds of the North Carolina College of Agriculture and Mechanic Arts, and the students have access to the experiments, and and Mechanic Arts, and the students have access to the experiments, and study their progress and their results. On the farm are located the experimental dairy, silos and barn, in which are the cattle under test for production of beef, milk and other purposes. Field-crop tests are also conducted, as far as is possible, upon the land of the farm. Here, also, is the field and plant house work of the horticultural divihouse work of the horticultural divi-sion. The Experiment Farm is con-nected by telephone with the city offi-ces. The Hillsboro street line of electric cars of the city stops in easy walk-ing distance of the farm.

Sliage Corn and Silo.

(F. E. EMERY, AGRICULTURIST, EXPERI-

MENT STATION.) Plant your corn just as you would to make a crop of grain. Cut it up and put in the silo when the kernels are well glazed, that is, while the stalks and most of the leaves are still green, and the kernels are beginning to harden. You can count 40 to 50 pounds per day for a mature asimal, cow or mule, which would be 5,000 pounds per animal from Nov. 1st to May 1st. Four animals would eat 36,000 pounds. There will necessarily be some waste, and you may want to feed another cow, so we will raise this amount to 25 tons. At 25 pounds per cubic foot, this will require 2,000 cubic feet. Ten feet square and 20 feet high will be a good form. Perhaps you can get out the form. Perhaps you can get out the timber needed for the walls and roof, and need to buy only the boards, sheathing, nails, doors and hinges, and a window for the gable opposite the door.

If you have a sidehill convenient to your stable, you can put your silo into it so as to fill from above to good

accent restrictions; ; we show some some account to make a fight fortrom in a stepping well taxable to will do as well and by the side, which may be

of rim x ivin, plank double, and spiked together, in fresh cement.

A bill of lumber sufficient to build such a silo would be as follows:

This institution was organized by legislative cunctment in 1877, and has for sixteen years been laboring for the best interests of the agriculture of North Carolina.

The station has issued during these years a million and more copies of bulletins, all bearing upon improvement of the state's agriculture. By dissemi 198 H W

> The door hinges and nails with hasps, together with two barrels of cement and two of lime, for foundation and floor, will be all the additional expense for material.
> Station bulletin No. 80 treats of siles.

It is sent upon application

Crops.

Insects are not altogether aspless or noxious. The value of the silk worm and honey less are known to all. Insects play a most important part in the fortilization of the ovules of many species of plants. There is a large class of rapacious and carnivorous insects which are in an indirect way, extremely useful to all growers of plants, because they hunt out and destroy the curs, larva or mature forms of noxious insects.

Cuts show exact size except where lines in-dicate natural length

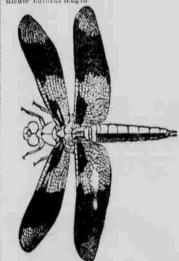


Fig. 14.—Dragon Fly.

While wagner a releastless warfare upon the insects which prey upon our crops, we should spare encourage and protect our insect allies. These later, as one might imagine from their preductions habits, are centrally large and ferroclous-looking, with powerful laws for setting and tearing their prev. In speaking with insect theides no discrimination can be made between friendly and injurious insects but as the friendly insects are carnivorous and do not cat the following their productions of the control of the co friendly and injurious insects, but as the friendly insects are carnivorous and do not cat the foliage, they are not but by Paris green or London purple. They are however killed by the kerosene emulsion and all insectiodes which kill by touch. Many farmers who have to resort to handph, set to save their crops flading these feroclous looking, carnivorous insects more or ness abundant upon the plants, conclude that these must be the parent forms of the lice or worms which do the damage. These, then, are carefully picked of and destroyed, in the belief that in this way the increase of the noxious insects may be prevented. This is a very unwise proceeding. Those feroclous-looking, prednctious insects are among the farmer's bestifends. Where they are present in considerable numbers the further increase, if not the reduction of the noxious insects is assured, with no cost to the farmer.

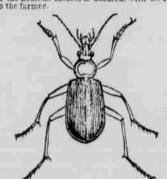


Fig. 37.—Green Ground-Beetle.

Among predacious insects none are more beneficial than the "lady-bugs." (Coccinella)—several species. These are the natural enemies of
plant-lice. The inru of the indy-bug resembles
a miniature alligator, and its appetite for plantlice is simply amazing. The indy-bugs vary incolor and size, but they are all small, and the
usual colors are red or pink spotted with black spotted with red, and yellow spotted with
black.



Fig. 13.-Thick-Thighed Soldier-Bu The noxious cucumber beetle may be known rom the true lady bug by its being striped in-tend of spotted. Lady bugs with us are never

The squash-borer. (Diabrotica 12-punctata, Fig. 9: also a destructive maser to crops, resembles a lady bug, but it is larger and has look feelers, which indy bugs have add. The Diabrotica is greenish yellow with binds spots.

There is not be functioned to come the control of the control of



The 10-spotted lady bur, (Hippotamia maculata, Fig. 21.) This beetle is pink, with black spots. The convergent

Lady bug and larva.

(Fig. 24.) lady bug, Hippodamia convergens 10-Spotted Fig. 25.) This is orange-red, with Lady-bug. 13 small black spots. Also rather Lady-bug. 13 small cheek spots. As a common common.

The Green Ground-beetle, (Calosoma scrutator, fig. 27.) Is one of our most common, elegant and useful insects. It is of a shining green color, without spots or atripes.



Fig. 10 shows the Virginia Tiger-Beetle (Tetracha Virginica) It is of a shining green color, with brown legs, of the exact size shown. Fig. 11 shows the Elongated Ground Beetle (Pasimachus elongatus) It is of a shining black color, ith dark-blue edge. Fig. 12 shows the Banded Soldier-Bug (Milyas cincinatus). The line at the left

hining, greenish, with golden in similar rows.



there.
Fig. 13 shows Thick
Thighed Soldier-bug,
(Acanthocophala femorata, This insect is very common in the South. It is of a black-brown color, semetimes inclining to red. It is of the Fig. 11.-Long Ground-Beetle.



Darning-Needle," (Labellula trimaculata bour swiftest hyln - insect. In the lar-



Fig. 29.—Larva of Murky Ground-Beetle

Questions and Replies.

Address all questions to the "N. C. Agricultu-ral Experiment Station, Ralcich, N. C. " Ques-tions may be sent in by any one and the subjects may embrace any agricultural topic. Re-plies will be written as early as possible by the member of the Station staff most competent to do so, and, when of general interest, they will also appear in these columns. The Station expects, in this way, to enlarge its sphere of usefulness and render great assistance to practical farmers.

Wicky Laurel, or Lamblelli. I send a box of leaves to learn if they contain my poison. I have lost two fine horses, sup-osed to have been poisoned.—E. F. A. Laurel.

N. C.

Answered by Gerald McCarthy, Botanist Experiment Station.

The leaves sent are those of Kaimia angusticia, popularly called Wicky Laurel and Lambkill. This plant is considered poisonous to sheep, but has never been known to kill borses or other animals. Yet it might do so when the animals correct themselves upon the leaves, as they are liable to do when turned out too carry. before the grass starts in the spring and when there is nothing else for them to eat. This shrub should be carefully eradicated from pas-ture lots.

Vinegar Eels.
I send you a small bottle of vinegar which has worms in it. Please let me know if these are always present in vinegar, or if they are un-wholesome.—J. S. D. Creek, N. C. (Answered by Gerald McCarthy, Botanist Ex-

Answered by Gerald McCarthy, Botanist Experiment Station.

The sample of vinegar contains "vinegar ceis" (Virones aceti.) Their presence is caused by two much exposure of vinegar to the air and probably by bad or unskillful handling of the truit from which the vinegar was made. Heat the vinegar until it is scalding hot—about 160 degrees. F.—at which temperature keep it for half an hour, then strain through cotton sheeting, barrel and some it turbity. Do not boil the vinegar, as that will injure the quality. After being treated as indicated the vinegar will be perfectly wholesome, though not quite so strong as might be.

Mixing of Watermelons and Cantaloupes. Is it cood practice to have watermelon and containupe patches along side of each other. Will either corrupt the other -R. B. C. Char-lette, N. C.

lotte, N. C.

(Answered by W. F. Massey, Horticulturist of Experiment Station.)

It was formerly supposed that all cucusbitaceous plants would mix if planted close to each other, but investigations of late years show that there is really very little crossing, even of those near akin. The musking ion and the water-melon will not cross at all, and year may plant them together freely.

When to Plant Black-eye Pens.-Cultiva-

tion of Sage.

I have just picked from a five acre field truck peas, and am desirous to know when, or how soon I may plant binck-eye peas. The farmers here say wait until the dark nights in June. What has the moon to do with it? I am thinking about planting an acre or so in Sage, that is, if there is any market for it. What is the nest variety to plant, and when is the best time, etc.! What does it usually sell forts—E. E. E., Coleraine, N. C.

'Answered by W. F. Massey, Horticulturist

Answered by W. F. Massey, Horticulturist Experiment Station.

Plant the peas at once, now that the ground is warm. There are still a great many people who study the meon more than the condition of their seil. If the land and seeson is all right, and the proper cultivation given the crop, it will be good. Sun and rain have far more to do with it than the moon. Hond leaf sage is the kind to grow. It is now rather late to begin. Succeed should be sown early in April in a rich bed, and the plants transplanted to a piece of and from which an early truck crop has been cut. The plants set in rows 24 feet apart and 12 inches in the row, will, if iand is good, nearly cover the ground by September, and as all the growth is young and tender it can be cut off at this ground and cured in the shade. If properly cured it will sell better in any of the northern cities, Baltimore especially. (Answered by W. F. Massey, Horticulturist xperiment Station.)

Best Varieties of Early Corn and Turnips

Best Varieties of Early Corn and Turnips.

I want to plant for market, North, corn for early rosast-ears, and also a crop of early turnips.

Will you not please write me as soon as you can what variety of corn will pay best to plant for early market, and what variety of turnips planted this season of the year will do best — J. L. K. Tarboro, N. C.

(Answered by W. F. Massey, Horticulturist Experiment Station.)

The best-corn you can plant for early shipping is Adams Extra Early. There is a variety of this grown by the market vardeners in Patapseo Neck, near Baltimore, Md., known there as the Neck corn, which is larger, earlier and better suited to our climate than the northern Adams. You can get it, I think, from J. G. Bolgiam & Son. Baltimore. For a crop of early turnips use the Extra Early Milan. It grows almost as quickly as a radish and is much earlier than the ordinary flat Dutch turnip.

THE CURSE OF WEALTH.

The tramp, for some mysterious reason, had excepted an offer to work about the place, for which he was to receive his meals, sundry old clothes, and twentyfive cents a day in cash. For the first two or the days he did very well and was paid fifty cents per day on account. He did not spend the money, but he began to grow listless and sad, and at the end of the week he interviewed his employer.

"You've been very kind to me sir," he said, "and I want to thank you for what you have done."

"That's all right," was the reply. 'I'm glad to be able to belp you."

"I know that, sir, and I appreciate it,

but I shall have to give it all up sir." "What's that for? Dont't I pay you

"Oh, yes sir; that isn't it. I have 75 cents left sir, but I find that money dosen't bring happiness, sir, and I guess I'll resign and go back to the old ways, sir. Wealth is a curse to some people sir, and I fancy I belong to that class. Good-by sir," and he shambled off down the path and struck the high-

SUNSET--A PROSE POEM.

The sun is deep in the west. Her heavenly bed is made. The evening red, her old, old, true servant has arranged her purple pillows.

It is a warm day and the sun is tired. She prepares herself for retirement. The pressing, heavy, gorgeous raiment she has stripped off-she is about to grasp the last of her golden ringlets.

Now she stands there in the deepest negligee! Unconsciously the blush of shame appears upon her cheeks. A last shy look in the world-had any one seen

And truly, there he looked asquint, already above the horizon, cautiously, only a part of his face-the moon! the impudent moon!

He has always got to look; no one is ever secure from him.

Suddenly, with a glow on her face, she throws him an extremely angry look and jumps into bed. The purple pillows close together over her like flames.

from the German.

ADVERTISEMENTS.



A cream of tartar baking powder. Highest of all in leavening strength .-Latest U. S. Government Food Report.

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RHEUMATISM, PIMPLES, ERUPTIONS,
and all manner of FATING, SPIEADING and
ELYRING NORDS. Invariably cures the most
corthogone blood disposes if directions are folioged.
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LITTLETON, N. C. Teeth Extracted without pain. NEW ADVERTISEMENTS.

Ayer's Hair Vigor

RESTORES

Color, Fullness, and Texture TO HAIR

Which has become Wiry, Thin, or Gray,

"Some five years ago, I was not a little alarmed to discover that my hair was falling out, threatening speedy baldness. AYER'S Hair Vigor being recommended, I procured a bottle and at once applied it to my hair and scalp, continuing to do so for several weeks, and was happily surprised that my hair stopped falling and me hair came out full of life and vigor. AYER'S Hair Vigor does not only restore new hair, but gives new life and vigor to its growth, and is a blessing to all who use it." Rev. D. J. Burr, Baptist Minister and Clerk of the Superior Court, Dawsonville, Ga.

HAIR VIGOR

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass.

PEOPLE FIND

That it is not wise to experiment with cheap compounds purporting to be blood-purifiers, but which have no real medicinal value. To make use of any other than the old standard AYER'S Sarsaparilla-the Superior Blood-purifier-is simply to invite loss of time, money, and health. If you are afflicted with Scrofula, Catarrh, Rheumatism, Dyspepsia, Eczema, Running Sores, Tumors, or any other blood disease, be assured that it pays to use AYER'S sarsaparilla, and AYER'S only. AYER'S Sarsapariila can always be depended upon. It does not vary, It is always the same in quality, quantity, and effect. It is superior in combination, proportion, appearance, and in all that goes to build up the system weakened by disease and pain. It searches out all impurities in the blood and expels them by the natural channels.

AYER'S SARSAPARILLA

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass.

Has cured others, will cure you

If you must have

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buy of us. Season is advanced and Sleep well, Madam Sun,—Translated we are selling at REDUCED PRICES. Look and you will be convinced that we mean to reduce stock by

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