AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

January 5, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

SMALL GRAIN

APHIDS - PRIMARILY ENGLISH GRAIN APHID (Macrosiphum avenae) - NORTH CAROLINA - Recent mild weather has contributed to a buildup of aphids in scattered small grain fields. Reports from Polk, Surry and Chatham counties indicate that fields with an average of 3 aphids per plant occur. However, surveys of randomly selected fields in the Piedmont and Coastal Plain indicate infestation levels of 3 or more aphids per plant occur in less than 1% of the fields. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

January 12, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

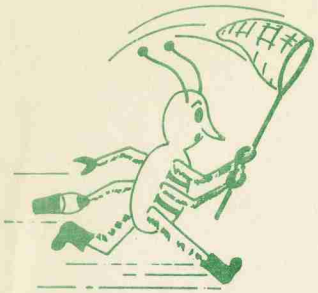
Raleigh, North Carolina

SOYBEANS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - During 1977, 80% of the soybeans in N. C. received at least 1 application of insecticide for earworm control. Estimates for 1978 indicate about 40% of the fields were treated for earworm control. (Hunt, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES



entomology

January 26, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist J-N H

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN AND SORGHUM

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - N. C. fall armyworm infestations were greatly reduced from 1977; however, a cold, wet spring forced many producers to plant late. Late-planted corn is very susceptible to fall armyworms. The loss plus cost of controlling fall armyworms in corn and sorghum was estimated to be $950,000 during 1978 compared to $3.8 million for 1977. (Hunt, Ext.)

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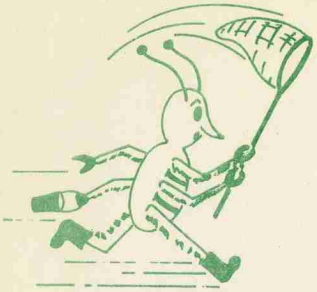

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February 2, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

HOUSEHOLD AND STRUCTURAL

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - NORTH CAROLINA - Estimates of loss plus cost of controlling eastern subterranean termites during 1978 increased approximately $850,000 from 1977 estimate of $19,150,000. (Moore, Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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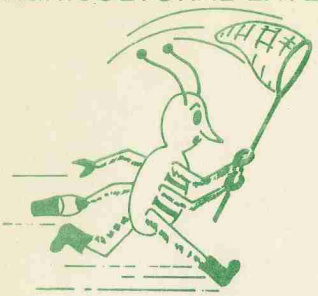

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February 9, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN IN STORAGE

RICE WEEVIL (Sitophilus oryzae) - NORTH CAROLINA - Reports received from several large central Coastal Plain feed mills indicate heavy infestations of rice weevils are occurring in farm storage. Millers report corn with 5 weevils per quart was common during January. One weevil per quart is considered weevily for interstate shipment. The long, warm fall contributed to a buildup of rice weevil in N. C. cornfields which were not harvested early. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

FEB 16 1979

February 16, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

STORED CORN

RICE WEEVIL (Sitophilus oryzae) - NORTH CAROLINA - Reports concerning rice weevil infestations in on-farm corn reveal that widespread infestations are creating concern among buyers. Spot checks indicate that 50% of the 20 farm storage facilities sampled in Johnston, Wake, Harnett, and Sampson counties have weevil infestations. The warm fall was conducive to field infestations. Weevil populations in corn held into the spring and summer are expected to increase rapidly. Growers are encouraged to sample all on-farm stored corn. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

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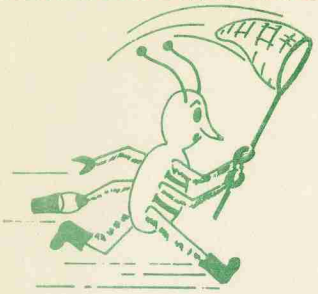

March 2, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T. N. H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

RICE WEEVIL (Sitophilus oryzae) - NORTH CAROLINA - Weevil activities subsided during early February, but warm temperatures increased activity. Approximately 30% of the commercial and on-farm storage facilities are expected to need fumigating if grain is to be stored more than 30 days during the spring and early summer. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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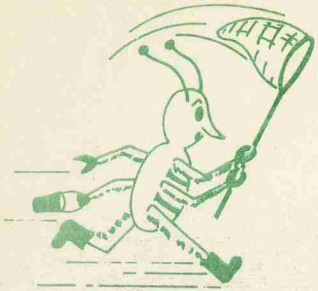

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March 9, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

FORAGE CROPS

ALFALFA WEEVIL (Hypera postica) - NORTH CAROLINA - Observations in 5 Wake County alfalfa fields have revealed no larvae to date. Larvae usually present in Wake County area by March 15. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

MAR 16 1979

ENTOMOLOGY DEPT.

entomology

March 16, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

FOREST AND SHADE

EASTERN TENT CATERPILLAR (Malacosoma americanum) - NORTH CAROLINA - Egg hatch began in southern Coastal Plain March 14-16. Observations in wild cherry indicate that hatch is underway in southern exposures. Rapid hatch and subsequent larval feeding expected if weather predictions of mid-sixties prevail March 17-24. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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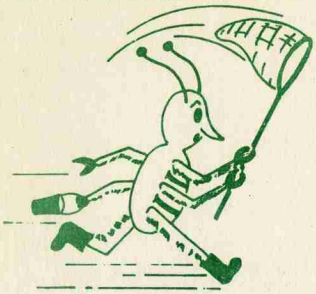

INSECT SURVEY NOTES

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March 23. 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

ALFALFA

ALFALFA WEEVIL (Hypera postica) - NORTH CAROLINA - Larval acticity increased this week within northern and central Piedmont. Samples from 5 fields indicated infestations to 40% of the tips infested in Wilkes, Lincoln, Rowan and Wake counties. Damage expected to increase rapidly if temperatures remain in the seventies. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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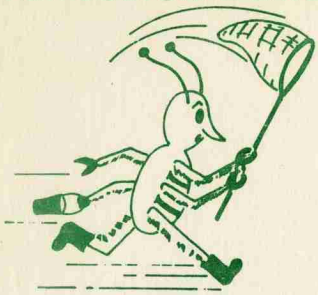

INSECT SURVEY NOTES

entomology

March 30, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

ALFALFA

ALFALFA WEEVIL (Hypera postica) - NORTH CAROLINA - Weevil damage reports received from Wilkes, Lincoln, Randolph and Iredell counties. Infestations at the higher elevations remain less than 10% tip infested. However, at lower elevations, warm temperatures have allowed rapid development and 3 of 5 fields examined had 60% tip infested 26-28 March. Hatching appears to be complete at the lower elevations, but scouting after the early April spray application is warranted. (Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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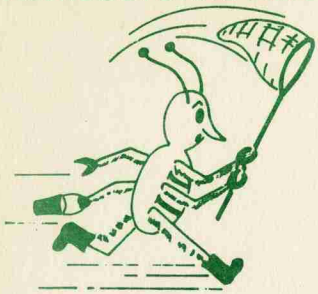

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April 6, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

FOREST AND SHADE

EASTERN TENT CATERPILLAR (Malacosoma americanum) - NORTH CAROLINA - Observations of eastern tent caterpillars 2-5 April across Piedmont counties revealed infestations averaging 3 webs per wild cherry tree 5-20 ft. tall. Webs average 20 sq. inches in size with larvae 1/4- to 1/2-inch long. (Hunt, Ext.)

FORAGE

ALFALFA WEEVIL (Hypera postica) - NORTH CAROLINA - Spot checks in 5 northern Piedmont alfalfa fields indicate many growers have applied insecticides. No larvae were observed in Durham, Person, Orange or Alamance counties. (Hunt, Ext.)

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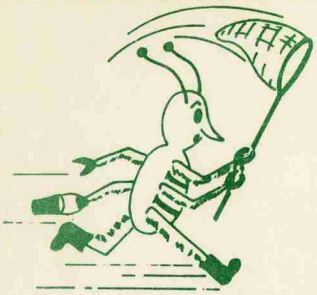

INSECT SURVEY NOTES

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April 13, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

FORAGE CROPS

ALFALFA WEEVIL (Hypera postica) - NORTH CAROLINA - Observations in approximately 10 fields 12-13 April revealed 3rd instar larvae in Chatham, Caswell, Rowan, and Iredell counties. Infestations to 100% tips infested were observed where control measures have not been properly applied. (C. Anderson, T. Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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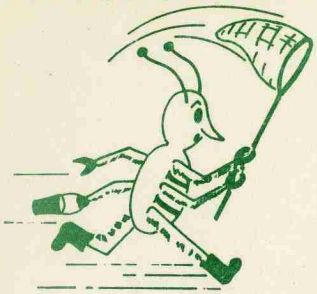

INSECT SURVEY NOTES

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April 20, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

SMALL GRAIN

CEREAL LEAF BEETLE (Oulema melanopus) - NORTH CAROLINA - Surveys conducted by N.C.D.A. 2-12 April reveal adults feeding and very likely oviposition in small grain fields. Collections have been made from Northampton Co. westward to Randolph Co. and southward to Lee Co. Fifteen of 23 counties sampled have been found to be infested. An average of 4.39 sites (range was 1-10) were sampled per county and an average of 1.78 sites (range was 0-6) were infested per county. A parasite release program is planned for 1979. (R. Galloway, NCDA)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

April 27, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T. N. Hunt

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

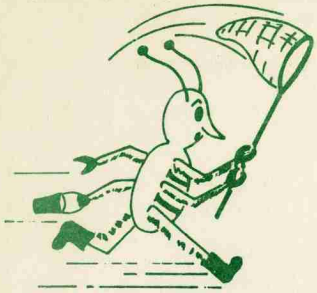
SOUTHERN CORN BILLBUG (Sphenophorus callosus) - NORTH CAROLINA - Reports of damage and observations indicate billbug injury occurring in southern Coastal Plain. Damage is currently known to be occurring in corn 2-4 inches tall in Bladen, Sampson, Columbus, Duplin, Pender and Onslow counties. Observations in 15 fields reveal the familiar pattern of heavy border row damage. (Hunt, Ext.)

FRUIT

A SCOLYTIDAE (Xyleborus semiopacus) - NORTH CAROLINA - M. J. Pate collected from a plum (var. Shirley) branch on 20 April 1979 in Rockingham, Richmond Co., N. C. Determination was made by D. L. Stephan, N. C. State, Raleigh, N. C. This is a new state record according to our records. First continental U.S. record was reported in 1974 from Summerville, S. C. See CEIR 24 (45-48): 863-864, 1974. (Hunt, Ext.)

Dr. Knight

AGRICULTURAL EXTENSION SERVICE



INSECT SURVEY NOTES

entomology

May 4, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

SOUTHERN CORN BILLBUG (Sphenophorus callosus) - NORTH CAROLINA - Adult damage increasing in the southern Coastal Plain. Reports and observations reveal 40-50% plants damaged in scattered fields. The most northern damage report to date has been from Johnston County. Damage continues to be concentrated along ditch banks and woods. (Hunt, Ext.)

SMALL GRAIN

BLACK CUTWORM (Agrotis ipsilon) - NORTH CAROLINA - Larval damage is appearing in the south central Piedmont. Damage reported has been less than 5% plants cut to date. However, as larvae mature, damage is expected to increase in cool, wet areas of scattered fields. Growers would be well advised to scout corn until the stems are 1 inch in diameter. (Hunt, Ext.)

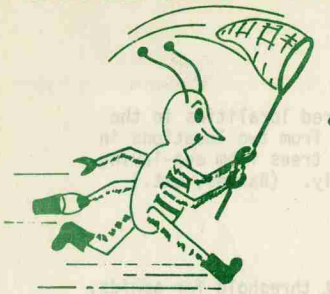
CEREAL LEAF BEETLE (Oulema melanopus) - NORTH CAROLINA - NCDA inspectors identified 64 of 140 sites in 37 counties infested with adult cereal leaf beetles to date. Only 1 larva had been collected prior to April 25, 1979. Infestations occur in all small grain varieties. (Galloway, NCDA)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

Dr. Knight

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES



entomology

May 11, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TN.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

BILLBUGS (Sphenophorus callosus) - NORTH CAROLINA - Southern corn billbugs continue damaging corn in the Coastal Plain. Infestations were reported May 7-11 from the southern coastal counties of Hyde, Tyrrell, Washington, Beaufort, Wayne, Johnston, and Onslow. Stand losses exceeding 50% in 3-5 acre spots of 20+ acre fields have been observed, and scattered damage occurs in 30% of the southern and extreme Coastal Plain fields. Damaging infestations are not known to occur in the Piedmont or Mountain regions. Billbug damage is most prevalent in nonrotated cornfields with no soil insecticide. (Hunt, Ext.)

ARMYWORM (Pseudaletia unipuncta) - NORTH CAROLINA - Sporadic damage to corn has been observed in Montgomery, Lenoir, and Edgecombe counties. Small grain and no-till corn should be considered as high risk fields from armyworm. Consequently, appropriate scouting should be conducted. Little economic injury has occurred to date. (Hunt, Reese, Ext.)

A SCARAB (Dyscinetus morator, sometimes called rice beetle) - NORTH CAROLINA - Adults have been observed feeding on corn and burrowing around base of corn in Hyde County. This black, dome-shaped beetle has been observed in numerous fields May 4-11; however, the pest status in N.C. is presently unknown. They are most common in wet soils, and the larvae are thought to feed on organic matter in the soil. (Van Duyn, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

FRUIT AND SHADE

The 17-year cicada (locust) is expected in scattered localities in the northern Piedmont. Reports May 4-8 have been received from two locations in Stokes County. Damage to the twigs of shade and fruit trees from egg-laying females may occur, but permanent injury is very unlikely. (Barnes, Ext.)

TOBACCO

In Greene County, of 5 fields sampled, none were at threshold for aphids, budworms, flea beetles or hornworms. Highest budworm infestation was 7% - threshold 10%. Highest flea beetle infestation 2/plant - threshold 8/plant. No hornworms found. Highest aphid infestation 0%.

In Lenoir County, 1 field at 4% budworm infestation. Flea beetles~1/plant. Aphids and hornworms - 0.

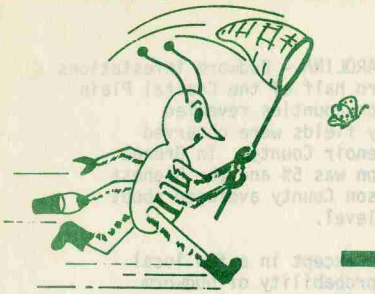
Scattered reports of cutworms in Coastal Plain at less than 5% damage levels. (Southern, Ext.)

LIGHT TRAPS

European corn borer adults remain active with collection from southern Coastal Plain traps averaging 8 moths/night/trap. Corn earworm collections continue to rise in the coastal counties. Egg laying of these adults is largely on wild hosts and corn. Damaging larvae are expected in corn whorls of the southern coastal counties within 2-3 weeks. (Hunt, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES



entomology

May 18, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

SOUTHERN CORN BILLBUG (Sphenophorus callosus) - NORTH CAROLINA - Billbug damage reports continue from Bladen, Johnston, Onslow, Pender, and Robeson counties May 14-18. The period for rescue treatment for all but very late corn has passed. Known replanting occurred in three 20- to 30-acre cornfields observed May 15-17 in these southern coastal counties. Postemergence treatment of little value after suckering has been initiated. Where no herbicide problem exists, soybean is a better choice should replanting be necessary this late. (T. N. Hunt, Ext.)

SUGARCANE BEETLE (Eutheola rugiceps) - NORTH CAROLINA - Severe adult damage reported May 16 from Union and Randolph counties in field corn. Sixty to 90% stand damage occurred in 6 Union and 2 Randolph County fields 10-87 acres in size. All damaged fields were planted in a 5- to 13-year sod. (P. E. Bazemore, D. Young, Ext.)

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Larvae are occurring in the whorls of corn across the southern coastal counties. Samples May 15-17 in 8 cornfields revealed 5 fields with larvae in Sampson and Bladen counties. Two of 8 fields were observed with 35-60% of the plants harboring larvae. Whorl damage by earworm rarely causes a yield reduction. Treatment should be delayed until 70-80% of the plants are infested. Aerial treatment is rarely effective. (T. N. Hunt, Ext.)

TOBACCO

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - Budworm infestations in early set tobacco increased rapidly in the southern half of the Coastal Plain May 15-17. Spot checks in Lenoir, Greene, and Sampson counties revealed 1 field with a 60% infestation level in Lenoir. Many fields were observed with 20-30% of the plants infested in that area of Lenoir County. In Greene County, 5 fields were sampled; the average infestation was 5% and the highest was 12% infested plants. Infestation levels in Sampson County averaged about 8% with an occasional field above the 10% threshold level.

In 1978, infestation levels above threshold were rare except in a few local spots. Farmers should be alerted to the increasing probability of budworm damage. They are much easier to control when small. (B. Ellers, A. Harper, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

May 25, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

SUGARCANE BEETLE (Eutheola rugiceps) - NORTH CAROLINA - Adult beetles continue to damage corn in southern Piedmont. Damage reports received May 21-24 from Lincoln, Cabarrus, Stanly, Anson and Union counties. Replanting has occurred in fields to 20 acres. (S. Winslow, T. Hunt, Ext.)

A SCARAB (Dyscinetus morator, sometimes called rice beetle) - NORTH CAROLINA - This black, dome-shaped beetle was reported May 11 from Hyde County. Damage was occurring around the base of corn in numerous fields. Reports and identification indicate damage also occurring in Craven County. Damage to date has been restricted to soils with high organic matter (8+% om). The pest status is presently being evaluated. (R. L. Robertson, Ext.)

FORAGE

ALFALFA WEEVIL PARASITES (Bathyplectes sp.) - NORTH CAROLINA - Late instar weevil larvae were collected from southeastern Mountain and Piedmont alfalfa fields. Parasites were reared from all collections. The parasite was released

about 10 years ago at various locations in North Carolina and was detected in 7 of 9 counties sampled April 10-26. Parasite infestation levels are logically higher in older and established fields. Percent parasitization is lower than in a similar survey conducted in 1975. Below are the percent infestations by county. (C. Anderson, Ext.)

County	# Fields	% Weevil Larvae Parasitized
Randolph	1	4
	1	1
Stanly	1	3
Lincoln	1	11
Gaston	1	4
Wake	1	4
Rowan	1	0
Chatham	1	0
Henderson	1	2
Rutherford	1	5

TOBACCO

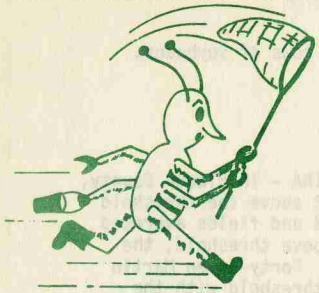
TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - In Bladen County, 358 tobacco fields (approximately 1,400 acres) were sampled with 90 at or above the threshold level. The highest percent infestation was 26% of the plants infested and averaged 4.3%. (A. Baumhover, USDA)

Scouts in Lenoir County report budworm infestations to 30% plants infested. Wet fields hampered insecticide application severely across the entire Coastal Plain May 21-26. Reports from 5 Greene County test plots May 25 reveal an average of 4% plants infested with the highest percent infestation being 10% (5 fields sampled). (A. Harper, S. Southern, Ext.)

TOBACCO HORNWORM (Manduca sexta) - NORTH CAROLINA - The first hornworm larvae (1st instar) of the season were detected in Johnston County. Light trap collections also indicate increased activity of adults. Activity is expected to increase; growers should intensify scouting for hornworms beginning May 28. (Southern, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES



entomology

June 1, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist JNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

TRUE ARMYWORM (Pseudaletia unipuncta) - NORTH CAROLINA - Observations and reports indicate light to severe defoliation is occurring in no-till corn planted in a rye cover crop. Damage has been observed in Guilford, Wilkes, Montgomery, and Wake counties. Infestations with at least 1 larva per plant in 75% of the plants have been observed. Samples in a 15-acre Wilkes County field revealed 70% of the plants infested. To date, 15 damaged fields have been reported. Corn less than 10 inches tall can be severely damaged by 1 or 2 large larvae. Growers with sod-planted corn into lush grass or a small grain cover crop should observe their fields for the next few weeks. Armyworm infestations may be spotty within a field; therefore, thorough sampling is warranted. (M. Miller, Wilkes; R. Reich, Guilford; J. Falter, Ext.)

SOYBEANS

GRASSHOPPER - NORTH CAROLINA - Damage from grasshopper nymphs has been observed in Nash County along field margins. Thirty plus percent defoliation has been observed in rows bordering grass strips, road shoulders, etc. Observations May 31 in Sampson and Johnston counties along road shoulders indicate a

similar phenomenon. Prudent growers should scout border rows of soybeans, corn and tobacco. (M. Bowden, T. Hunt, Ext.)

TOBACCO

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - In Bladen County, 213 fields (approximately 850 acres) were sampled with 62 above the threshold (10% infestation) level. The highest infestation was 20% and fields averaged 6%. In Lenoir County, 325 fields were sampled with 87 above threshold, the highest infestation 40%, and the average infestation 8%. Forty-seven Martin County fields (275 acres) were checked. Ten were above threshold with the highest infestation 28% and the average 8%. In Granville County, 2 of 151 fields (450 acres) were above threshold. The highest infestation was 14%, but fields averaged only 1% infestation. Wet weather has delayed treatment in these areas.

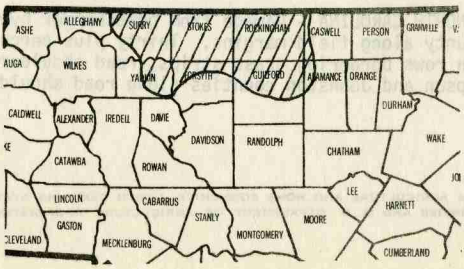
GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Aphid numbers are increasing slowly in the Coastal Plain. In Lenoir County, 2 of 325 fields were above threshold (25% of plants moderately infested) with the highest infestation 28%. Average infestations were 2-3%. Martin County fields averaged less than 5% infestation and the highest was 10%.

TOBACCO HORNWORM (Manduca sexta) - NORTH CAROLINA - Hornworm moths continue to be trapped at light traps, but no significant infestations have yet been reported. (S. Southern, Ext.)

FOREST AND SHADE

17-YEAR PERIODICAL CICADA (Magicicada septendecim) - NORTH CAROLINA - Much interest has been generated by the presence of the periodical cicadas (Brood II 17-year) in the north central Piedmont counties. Emergence has largely occurred; however, adults will likely remain for 2-3 more weeks. Flagging or tip dieback is largely restricted to oaks, but some minor damage has occurred to small fruit trees or shrubs. Heaviest infestations were reported from northern half of Guilford County, all of Rockingham and Stokes counties, the southeastern corner of Surry County, and the eastern half of Yadkin County. However, scattered infestations have been observed in the area indicated on the map below. (T. Hunt, Ext.)

BROOD II PERIODICAL CICADA - 1979



AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

June 8, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TN.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

EUROPEAN CORN BORER (Ostrinia nubilalis) - NORTH CAROLINA - Observations and damage reports 4-7 June indicate European corn borer activity is concerning agents and farmers scattered across the entire Coastal Plain. Surveys conducted in Wayne, Lenoir, and Johnston counties 6-7 June indicate that economic infestations are scattered. Samples from five reported problem fields averaged 15% of the plants infested. However, reports indicate that fields occur with 80% of the plants infested with multiple larvae. Best control is achieved when detection is made early. Treatment should be considered when 40-50% of the plants harbor more than 1 larva in the whorl. (T. Hunt, Ext.)

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Late instar fall armyworm larvae have been collected in a Washington County cornfield. This is very early for the occurrence of this pest in N. C. To date, little damage has occurred, but growers should scout late-planted and stressed cornfields in the Coastal Plain counties. Heavy fall armyworm infestations often occur after a cool, wet spring. Early detection is a must if effective control of this whorl feeder is achieved. (J. Van Duyn, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

SOYBEANS

BEAN LEAF BEETLE (Cerotoma trifurcata) - NORTH CAROLINA - Adults are defoliating soybeans across the entire Coastal Plain. Damage to date appears greatest in the southern and Tidewater counties. The "shothole" appearance in soybean leaves results from feeding by this insect. To date, economic damage has not been reported. The threshold level is 30-35% defoliation prior to bloom in healthy soybeans. Scouting for this pest is important until beans become 12 inches or taller. This insect is generally a seedling pest, but season-long damage is not uncommon in the Tidewater counties. (T. Hunt, Ext.)

TOBACCO

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - In Bladen County, 253 fields (approximately 1,000 acres) were sampled with 60 above the threshold (10% infestation) level. The highest infestation was 17% and fields averaged 4.9%. In Lenoir County, 150 fields were sampled with 68 above threshold, the highest infestation was 25%, and the average infestation was 8% of the plants infested. Fifty-seven Martin County fields (290 acres) were checked. Fifteen were above threshold with the highest infestation 22% and the average 7%. In Granville County, 11 of 225 fields (650 acres) were above threshold. The highest infestation was 30%, but fields averaged only 3%. (Multiple Pest Management Groups)

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Infestation levels remain low but colonies are gradually building. All counties reported 0 fields at threshold except Lenoir County, which had 1 of 377 fields needing a treatment. (Pest Management Groups)

FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Lenoir County reported 137 of 377 fields at threshold for flea beetles. The average infestation level was 5 beetles per plant. Controls are being applied. (A. Harper, Ext.)

FOREST AND SHADE TREES

17-YEAR PERIODICAL CICADA (Magicicada septendecim) - NORTH CAROLINA - Adult damage (pruning of tree twigs) has peaked in the northern Piedmont counties which experienced emergence of this insect. Damage was primarily restricted to large oaks, particularly white oaks. Adult mortality is rapidly occurring and the late emergers will disappear within the next 2 weeks for 17 years. (T. Hunt, Ext.)

Knight

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

June 15, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - More early reports of fall armyworm were received 11-14 June from sweet corn in the northeastern counties. Approximately 10 spot infestations are known. To date the infestations are not creating much farmer concern. Damage is very similar to corn earworm feeding in the whorl. Historically, this insect is heaviest after cool, wet springs. Growers should closely sample field corn until after tasseling has commenced. (T. Hunt, Ext.)

EUROPEAN CORN BORER (Ostrinia nubilalis) - NORTH CAROLINA - Reports and observations across the entire Coastal Plain indicate that European corn borer larvae are present in practically every field. Field infestation levels vary from 5% to 75% of the plants infested with 1 or more larvae. In field corn, control is very limited once stalk boring has begun; early harvest is practically the only recourse. Growers should be cautioned that tassel loss is not a primary concern and insecticide applications to prevent tassel loss are almost never warranted. (T. Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

SOYBEANS

SOYBEAN THRIPS (Sericothrips variabilis) - NORTH CAROLINA - Observation in Johnston, Wayne, Lenoir, Nash, Edgecombe and Sampson counties 11-14 June reveal that widespread infestations are occurring. However, damage primarily occurs on the lower leaves with water stunted spots (to ½ acre) most heavily damaged. Insecticide treatments are not warranted until damage appears on the terminal leaves. (T. Hunt, Ext.)

FRUITS

JAPANESE BEETLE (Popillia japonica) - Adult Japanese beetles have been detected across the Piedmont and Coastal Plain. Detection in the Mountains is expected within the next 2 weeks. Grapes, apples and other susceptible fruits, berries and shrubs should be observed at least twice weekly for defoliation by this pest. Apply carbaryl when damage and beetles become apparent. Damage will not decline until late July or early August depending upon your location. (T. Hunt, Ext.)

TOBACCO

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - In Bladen County, of 275 fields (approx. 1100 acres) 11 were at or above threshold (10% infestation) with the highest infestation 10%; fields averaged 3% infestation. Sampson County reported none of 17 fields at threshold, but the highest infestation was 8% and fields averaged 4%. In Granville County 11 of 289 fields were above the threshold with the highest infestation 40%. Fields averaged 4%. Populations appear to be declining in the Coastal Plain. (Pest Management Groups)

GREEN PEACH APHID (Myzus persicae)- NORTH CAROLINA - Infestations continue to build up. Two of 275 Bladen County fields were above threshold (25% of plants with reproducing colonies); highest infestation 28%; average infestation 7%. In Greene County one field of 5 was above threshold with an infestation level of 30%; fields averaged 13%. One of 17 fields was above threshold in Sampson County, but average infestations were low. None of 289 fields checked were above threshold in Granville County. (Pest Management Groups)

TOBACCO HORNWORM (Manduca sexta) - NORTH CAROLINA - Of 586 fields checked in eastern N. C., none were at or above threshold. Some fields with small worms were reported in Granville County. (Pest Management Groups)

GRASSHOPPERS (Misc. species) - NORTH CAROLINA - Treatment to control grasshoppers was recommended on 1 of 17 fields in Sampson County and on 3 of 289 fields in Granville County. (Pest Management Groups)

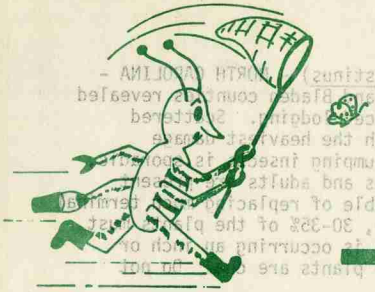
Error Correction:

TOBACCO - FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Insect Survey Notes incorrectly reported 137 of 377 Lenoir County tobacco fields at threshold for flea beetles. The correct report is 0 tobacco fields at threshold for flea beetles. Some aphid data was erroneously recorded.

A-6.

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES



entomology

June 22, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist
Raleigh, North Carolina

CORN

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Larvae of the fall armyworm are being collected from more sweet and field corn in the northeastern counties. Infestations continue to be generally low, and to date, reports have been restricted to the northeastern area. The corn crop is very variable this year with many late-planted fields. Detectable infestations this early are very rare and warrant grower attention, particularly to pretassel corn, sorghum and coastal bermuda. (T. Hunt, Ext.)

SPRING ROSE BEETLE (Strigoderma arboracola) - NORTH CAROLINA - Spring rose beetle adults, which are similar to Japanese beetles except they are brown and pink, are rapidly emerging across the mid- and southern Coastal Plain. Much concern has been expressed by corn farmers regarding silk cutting. The adults or larvae are not pests of corn. (T. Hunt, Ext.)

SOYBEANS

SOYBEAN THRIPS (Sericothrips variabilis) - NORTH CAROLINA - Thrips-injured soybeans began rapid improvement in most southern Coastal Plain fields sampled 15-21 June. However, spots to 2 acres in size were observed with severe injury to lower leaves. Insecticide treatment is not warranted until damage appears on the terminal leaves and the yellow nymphs are present. (T. Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - NORTH CAROLINA - Reports and observations from Robeson, Cumberland and Bladen counties revealed widely scattered threecornered alfalfa hopper induced lodging. Scattered damage was observed in 3 Robeson County fields with the heaviest damage being 40% broken stems. Presence of these quick-jumping insects is sporadic, and care should be taken to be positive that nymphs and adults are present before treatment is considered. Soybeans are capable of replacing much terminal tissue. If breakage is occurring midstem or above, 30-35% of the plants must be cut before treatment is necessary. If breakage is occurring an inch or 2 above ground, consider treatment when 15% of the plants are cut. Do not treat only damage symptoms. (T. Hunt, Ext.)

TOBACCO

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - Fields reaching threshold began declining 18-21 June as the percent fields buttoning (flowering) increases. In Bladen County, 228 fields, approximately 1,150 acres were sampled with 2 above the threshold level. The highest infestation was 11%, with fields averaging 1.7%. In Lenoir County, 358 fields were sampled with 0 above threshold.

Martin-Washington County scouts sampled 47 fields (275 acres). Three were above threshold with the highest infestation 11% and averaged 75% of the plants infested. Granville County reported less than 1% of 245 fields (650 acres) above threshold. The highest infestation was 15%, but fields averaged only 2%. (T. Hunt, Ext.)

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Aphid infestations are escalating in Lenoir County area. Thirteen percent of the 358 fields scouted 15-20 June were at threshold compared to 3.4% June 8 and 3.1% June 15th. The highest infestation level was 50% of the plants with moderate to heavy aphid colonies. The average was 12% of the plants with moderate infestations. Counties to the north report light but building aphid populations. (Multiple Pest Management Program)

GRASSHOPPER (Primarily Melanoplus sp.) - NORTH CAROLINA - Four of 245 (650 acres) Granville County tobacco fields reached threshold 15-21 June and treatment was recommended. Infestations have also been reported from the Old Tobacco Belt as far west as Surry County. Treatment for grasshoppers should also include borders along grass strips, road shoulder ditches, etc. (D. Cobb, Ext.)

LIGHT TRAP

Traps in Pamlico County indicate emergence of second generation European corn borer moths. Collections in the county are as follows: 0 - June 8, 22 - June 15, 61 - June 18, 76-100 - June 22.

Collections in other reporting counties do not indicate rapid increases. Emergence appears to be from the large Irish potato acreage in the county.

Corn producers with late (pretasseling) corn would be well advised to scout such fields. Eggs and larvae will be appearing in about 10-15 days. Treatment of tasseling field corn is rarely economically feasible. Growers should not be concerned about tassel cutting. (T. Hunt, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

June 29, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

SOYBEANS

JAPANESE BEETLE (Popillia japonica) - NORTH CAROLINA - Spot defoliation has been reported from Washington, Martin, and Sampson counties June 25-28. Damage to date is light (5-10% defoliation) and is occurring in spots to 1/4 acre. No treatments have been reported, but the population is building. (Multiple Pest Management Reports)

TOBACCO

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Cool temperatures are contributing to a rapid increase in the aphid population over the entire Coastal Plain. In Lenoir County, 65 of 376 fields scouted were at threshold for aphids June 25-29. In Washington-Martin counties, 42 tobacco fields were scouted during the same period, and 5 fields were at or above the threshold level. In one week, populations in some fields rose from 10% to 30% of the plants with moderate infestations. Bladen County reported 7 of 290 fields sampled at threshold June 25-28 compared to 0 June 18-21. (Multiple Crop Pest Management Reports)

LIVESTOCK

FACE FLY (Musca autumnalis) - NORTH CAROLINA - Spot checks of 5 beef cattle herds in Macon, Clay, and Cherokee counties (totaling 15 herds, approximately 150 head) indicate populations are lower on a per head basis than in 1977 in these southwestern counties. Infestations averaged 10 face flies per head compared to 25 per head in 1977. Temperatures to date have been below normal. Therefore, low populations to date are expected to be temporary rather than a general decline. (T. Hunt, Ext.)

LIGHT TRAPS

Light trap collections from Sampson, Lenoir, and Pamlico counties June 18-28 indicate emergence of second generation corn earworm adults from the soil is beginning in the southern Coastal Plain. Reports from the northern Coastal Plain reveal light moth emergence to date. Acceleration of emergence in the northern Coastal Plain is expected July 2-6. (T. Hunt, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

July 6, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

TOBACCO

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Aphids continue to be the major insect pest of tobacco July 2-6. Reports from Bladen, Wake, Lenoir, Martin-Washington, and Granville pest management groups indicate increased aphid activity. Only Granville County did not have fields at threshold. Bladen County reported 16% of 223 tobacco fields scouted at threshold for aphids as compared to 2% of 290 fields June 25-28. In Martin-Washington County, the percent fields at threshold for aphids decreased from 12% June 25-28 to 9% of 53 fields July 2-6. The decline can be attributed to insecticides. Sampson County reports 3 of 15 fields sampled at threshold for aphids compared to 2 of 18 fields June 25-28. Growers should be encouraged to base spray decisions on scouting and thresholds. (Pest Mgt. Programs)

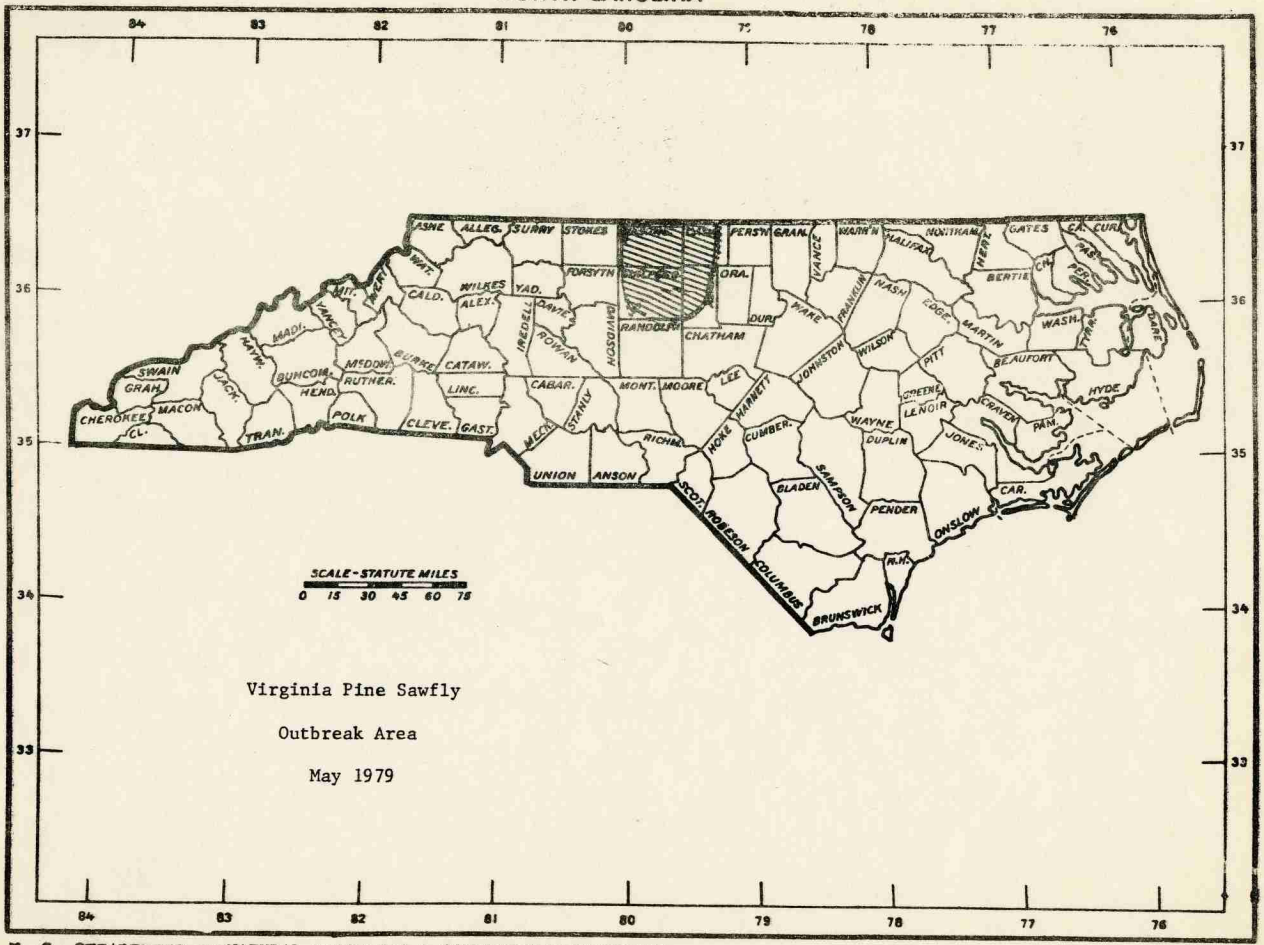
VEGETABLES

PICKLEWORM (Diaphania nitidalis) - NORTH CAROLINA - Larvae were reported June 21 in Columbus County. The presence of this pest in N. C. is early but not a record. Infestations are expected to rapidly expand northward in commercial cucumbers and squash. (K. A. Sorensen, Ext.)

FOREST AND SHADE

INTRODUCED PINE SAWFLY (Diprion similis) - NORTH CAROLINA - Adult imported pine sawflies emerged from cocoons in the Linville area around April 5 and began egg laying. The larvae have now begun feeding on white pine needles. Christmas tree growers should be on the lookout for the caterpillarlike larvae in white pine Christmas trees. When the insects are found, they can be controlled by spraying with Sevin insecticide. So far, the insects have been found in Avery, Burke, Caldwell, and Alleghany counties. (N. C. For. Service)

VIRGINIA PINE SAWFLY (Nediprion pratti pratti) - NORTH CAROLINA - This sawfly is causing widespread pine defoliation in the central Piedmont. Damage is generally scattered except for a few locations where sizable acreages are defoliated. The worst area located in a recent aerial survey was in Alamance, Rockingham and Caswell counties. A map showing the general area of infestation is attached. (N. C. For. Service)



Virginia Pine Sawfly

Outbreak Area

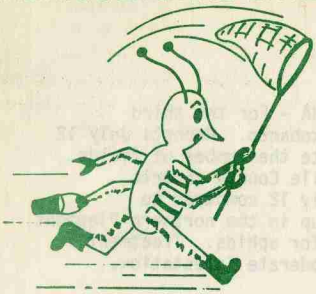
May 1979

N. C. DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT

DIVISION OF FOREST RESOURC

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES



entomology

July 13, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Larval infestations in Harnett, Wilson, Johnston, Sampson, Wayne, Lenoir and Craven counties ranged from 16% to 90% of the ears with a corn earworm larva. The average for 12 fields was 39% of the ears infested. Infestations in Martin, Halifax, and Edgecombe counties ranged from 4% to 32% of the ears infested and averaged 12% for 7 fields. Generally, ear infestations to date average 20% to 40% below 1978 and 40% to 70% below 1977. Many authorities do not feel mass migration is an important consideration for earworm outbreaks. (T. Hunt, Ext.)

SOYBEANS

GRAPE COLASPIS (Colaspis brunnea) - NORTH CAROLINA - Observations July 11 in the Kilkenny area of Tyrrell County revealed scattered soybean fields with spots 25 to 100 feet in diameter damaged from the root-feeding grape colaspis larva. Control can rarely be justified after dying spots have been identified. Adults were also observed on 50+% of the plants in approximately 10 fields visited. (W. R. Jester, Ext.)

TOBACCO

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - For the third consecutive week, aphids are the major insect pest of tobacco. Reports July 12 from Lenoir, Wake, Bladen, and Sampson counties indicate the number of fields reaching threshold dropping slightly. However, Granville County reports 14 of 323 fields scouted above threshold for aphids July 12 compared to 0 on July 6. This indicates the potential for a buildup in the northern Piedmont exists. Growers in the area should continue scouting for aphids. Treatment is recommended when 25% or more of the plants have a moderate infestation. (Pest Mgt. Programs)

CABBAGE LOOPER (Trichoplusia ni) - NORTH CAROLINA - The Sampson County pest management program reported scattered infestations of cabbage looper in tobacco. To date, economic injury has not occurred, but this insect is difficult to control and close monitoring is warranted. (B. Bass, Ext.)

BLUE MOLD (Peronospora tabacina) - NORTH CAROLINA - Widespread damage is occurring from this fungal leaf disease in Haywood, Buncombe and Madison counties in burley tobacco fields. Some fields observed had 90+% of the plants infected, and estimates range to 50% of the Madison County fields infected. Severe damage from blue mold is very uncommon in the burley area. (S. Southern, Ext.)

LIGHT TRAP

Collections of corn earworm adults dropped from July 6 levels in all but 1 Pamlico County trap. A gradual decline is expected until emergence of the third generation from corn during early August. (16 cooperators (USDA, NCDA, Ext.))

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

July 20, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T. N. H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN AND SORGHUM

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Samples in 5 Johnston and 4 Wake County pretasseling cornfields averaged 30% of the plants infested with 2 or more larvae. There was great variability in planting dates this year, resulting in a larger than usual acreage of late-planted corn. Growers with corn that has not reached the dough stage should scout for fall armyworms weekly until the dough stage is reached. The action threshold for fall armyworm is 80% of the plants averaging 1 larva/plant or 40% of the plants with more than 1 larva/plant. Stress or poor stands should be considered when treatment decisions are made. The level of corn earworm feeding on the foliage of corn is insignificant this time of year. Foliage damage in corn or sorghum from now until frost will probably be fall armyworms. (T. Hunt, Ext.)

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Larval infestations in corn ears of Cumberland, Bladen, Robeson, and Columbus counties ranged from 36-86% ears infested, averaging 67% of the ears harboring larvae. These results indicate infestation levels 10% above 1978 and about 10% below 1977. In the

survey of corn ears this season, the southern Coastal Plain currently harbors a corn earworm population which should be of concern to soybean and cotton producers. Observations July 17-19 in Robeson, Bladen, Columbus, and Cumberland counties indicate that pupation is actively occurring in the area south of Harnett, Johnston, Wayne and Lenoir counties. Resulting moths, which produce third generation larvae, can be expected to begin their emergence in the southern Coastal Plain in about 10 days. Scouting soybean and cotton should be intensified when light traps indicate emergence is in progress. (Insect Alert Program)

TOBACCO

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Harvesting and chemical controls are reducing the number of tobacco fields reaching the aphid threshold throughout the Coastal Plain. However, the percentage of fields at threshold is climbing rapidly in the northern Piedmont. Four percent of 323 fields scouted July 9-12 had reached threshold in Granville County compared to 15% of 269 fields scouted July 16-19. Growers in the area will benefit from scouting for aphids. (D. Cobb, Ext.)

VEGETABLES

PICKLEWORM (Diaphania nitidalis) - NORTH CAROLINA - Pickleworm larvae were detected July 12 in a Wayne County squash planting. This indicates that this migratory pest of cucumbers, squash, gourds, etc., is infesting the central and northern counties at this writing. (K. Sorensen, Ext.)

FRUIT

GRAPELEAF SKELETONIZER (Harrisina americana) - NORTH CAROLINA - Surveys in 10 Coastal Plain and 5 Piedmont counties July 16-19 revealed damage in all counties on wild grapes along highways. Damage estimates on yard and commercial plantings are unavailable but considered significant regarding the widespread nature of the infestation. Chemical control is safe and easy. (K. Sorensen, T. Hunt, Ext.)

Dr. Knight

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

July 27, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN AND SORGHUM

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Larval damage continues to be detected in scattered late planted corn and sorghum fields statewide. Surveys indicate that the average infestation level is below the action threshold; however, the population in approximately 20% of the infested fields is nearing the action threshold. Regular scouting is warranted in corn that has not reached the dough stage. Sorghum which has not headed should be scouted for whorl feeders. In headed sorghum attention should be directed to the head for fall armyworm and other head feeding caterpillars. The threshold for head feeders is 1 medium to large larva per head. (T. Hunt, Ext.)

EUROPEAN CORN BORER (Ostrinia nubilalis)- NORTH CAROLINA - Larval infestations are creating alarm in the Piedmont and Mountain counties. Infestation of 50+ % of the plants infested has been reported and all fields have 5+ % of the stalks infested. Growers should be made aware of the difficulties of controlling borers after tunneling has commenced. Corn in the whorl stage is virtually the only stage of development where chemical treatment for this insect is feasible. Control by air is very limited, and tassel damage should be of little concern to growers. Fields with infestations above 20% of the stalks infested should be harvested as early as possible to reduce loss from lodging. (G. Westmoreland, T. Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

FORAGES AND PASTURES

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Coastal Bermuda producers should be alerted to the potential fall armyworm infestation in this crop. Infestations in lush grasses have been detected in Johnston, Wake and Wilkes to date. Approximately 50 acres of coastal Bermuda were treated in Johnston and several small plantings of fescue (for erosion control) were treated in Wilkes. Scouting should be underway in all lush grass crops. Infestations of 5 larvae ½ inch or larger per sq. foot warrant insecticidal controls. (P. Ricks, Ext.)

TOBACCO

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Aphid infestations persist in scattered northern Coastal Plain and Piedmont tobacco fields. Martin County reported 1 of 47 fields scouted at threshold and Wake County reported 4 of 124 fields scouted at threshold. In Granville County 15% of 269 fields scouted July 16-19 required an insecticide treatment. This level persisted in the area with 15% of 150 fields scouted July 23-27 also above threshold. (Tobacco Pest Management Programs)

SOYBEAN NOTE

Defoliation from a complex of bean leaf beetles, blister beetles, Japanese beetles and grape colaspis is occurring at subeconomic levels across the entire Coastal Plain. However, scattered fields near blooming are approaching the 15% post-bloom threshold level. Caution should be exercised not to overreact, because fields treated now are more susceptible to corn earworms later. (Pest Management Programs)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

August 3, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TN. H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN AND SORGHUM

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Surveys conducted July 30-August 2 revealed infestations in 85% of the corn and sorghum fields that are currently in the whorl or early tasseling stage. Infestation levels ranged from 7 to 90% of the plants infested and averaged 37%. Agricultural agents of the area have reported that many fields are averaging 3+ larvae per plant. These conditions are concentrated in the Piedmont and eastern Mountain counties where approximately 30% of the crop has not reached the dough stage. Growers should consider insecticidal controls when 40% of the whorl stage corn or sorghum averages more than 1 caterpillar per plant or when 80% of the plants average 1 caterpillar. (R. Hyatt, et al., Ext.)

TOBACCO

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Harvesting, insecticides and hot weather combined to reduce the number of northeastern Piedmont fields at threshold July 30-August 2. Granville County reports only 3% of the 166 tobacco fields scouted at threshold compared to 15% July 23-27. However, a survey in the Guilford - Rockingham County area revealed 8 of 8 fields sampled near or above threshold. (D. Cobb, L. Stutts, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

LAWNS, PASTURES AND HAY

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Recent rains have created lush growing grass statewide; infestations of fall armyworm larvae are occurring statewide in scattered lawn, pasture and hay fields. To date, economic infestations in hay crops have been concentrated in the southern Piedmont and southern Coastal Plain counties. Infestations to 10 larvae per square foot have been observed. Treatments are warranted when 5 larvae, one-half inch or larger, occur per square foot. Lush grass crops throughout the state should be sampled weekly until cool weather. (Hunt, Ext.)

SOYBEANS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Adult corn earworm moths were observed July 30-August 2 in 25 soybean fields scouted south of Wayne and Pitt counties. Moths are expected to occur in soybeans of northern counties August 6-10. Light trap collections in the southern Coastal Plain reveal the initiation of the large flight which produces the third generation larvae. Soybean producers should initiate scouting in the open canopy fields that are blooming and continue weekly until pod fill. Closed canopy soybeans may also reach threshold and should be scouted when a population buildup is observed in open canopy fields. (C. Anderson, M. Carpenter, Ext.)

LIGHT TRAPS

Collections from traps which represent the trend by area are listed below.

	July					Aug.	
Location	20	23	25	27	30	1	3
Pamlico Co.	10	10	4	125	125	325	325
Sampson Co.				39	125	735	515
Scotland Co. John's Station	21	32	51	291	275	480	470
Robeson Co. Midway	12	26	19	58	205	355	230
Randolph Co.	20	14	8	10	15	12	5
Halifax Co. Scotland Neck	12	21	15	19	25		
Edgecombe Co.	27	7	4	9	6		

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

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August 10, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN AND SORGHUM

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Surveys August 6 in Transylvania, Henderson, Buncombe, Polk and western Piedmont counties revealed 20- to 30-acre fields with 90+% of the plants infested. Larvae averaged 3-4 per plant prior to insecticide application. Approximately 5,000 acres were treated in the above counties, 2,500+ in the French Broad River Valley.

The infestation in whorl corn and sorghum generally appears to be pupating in the soil rapidly. Growers anticipating treatment must be sure larvae are present before insecticides are applied. Moths from these larvae will be emerging in 5-10 days. Many of these moths will be migrating northward, but corn and sorghum that remains in the whorl or early tassel stage will be attractive and should be scouted weekly for the next three weeks. (Hunt, Ext.)

SOYBEANS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Small larvae are present in all southern and central Coastal Plain, open-canopy soybean fields sampled August 6-9. Larval sizes generally ranged from first instar to 1/2 inch. None of 30 fields checked in Sampson, Robeson, Bladen, Wayne and Johnston counties were at threshold. Counts to 30 small larvae per 6-foot sample were observed, but no fields had 2 larvae 1/2 inch or larger per row foot. If possible, growers should wait until all eggs hatch before treatment is made. Growers should not be concerned about bloom removal until 50% of the blooms are being removed prior to pollination. Soybeans naturally drop 40% of the blooms and can compensate for more. Larval development is rapid with present temperatures. Surveys in Edgecombe, Halifax, Bertie, Nash, and Wilson counties indicate 80% of the north central Coastal Plain beans have open canopies this year. The ratio of open fields to closed fields south of Wayne, Pitt, and Wilson counties is about 50-50. All indicators point toward a moderate to heavy infestation in the southern Coastal Plain; therefore, all fields should be sampled at least weekly for next 3 weeks. Moths are laying eggs in northern Coastal Plain fields. To date, larval populations have not developed. (Anderson, Stutts, and Pest Mgt. Programs, Ext.)

VEGETABLES

BEET ARMYWORM (Spodoptera exigua) - NORTH CAROLINA - Beet armyworm larvae have been detected and treated in Pasquotank County infesting a commercial planting of cabbage. To date, extent of the beet armyworm infestation in N. C. is unknown. (Williams, Ext.)

FEDERAL AND STATE PROGRAM

GYPSY MOTH (Lymantria dispar) - NORTH CAROLINA - Collections of male moths in pheromone traps have been made in 5 N. C. counties July 17-August 8. Below are trapping results to date in N. C.:

July 17 - Beaufort, Carteret Co. - USDA
July 20 - Havelock, Carteret Co. - USDA
July 23 - KOA Campground, Halifax Co. - NCDA
Aug. 6-8 - Williamston, Martin Co. - NCDA
Aug. 6-8 - Goldsboro, Wayne Co. - NCDA

(G. Lee, USDA)

LIGHT TRAP

Collections of corn earworms escalated rapidly July 27 and continue high throughout the entire Coastal Plain. Reports from 18 Bladen County traps averaged 3,600/trap with a maximum 1 trap catch of 5,000. Oviposition continues actively in soybeans, cotton, and peanuts. Hot, dry conditions are conducive to low mortality and rapid growth of corn earworm larvae. Many soybean fields are expected to reach threshold in the southern and central Coastal Plain August 13-17. This information is available daily through toll-free Teletip Field Crop Insect Alert Tape 5001.

CORN EARWORM LIGHT TRAP COLLECTION

Location	July 20	23	25	27	30	August 1	3	6	8	10
Pamlico Co.	10	10	4	125	125	325	325	125	650	1001
Sampson Co.				39	125	735	515	550	430	440
Scotland Co. John's Station	21	32	51	291	275	480	470	---	550	415
Robeson Co. Midway	12	26	19	58	205	355	230	---	175	315
Randolph Co.	20	14	8	10	15	12	5	10	6	4
Halifax Co. Scotland Neck	12	21	15	19	25	31	550	750		
Edgecombe Co.	27	7	4	9	16	19	63	175		

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

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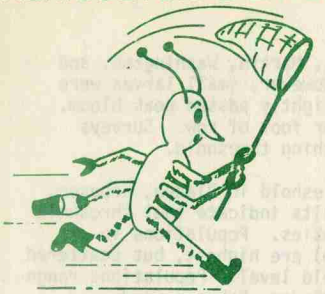


entomology

August 17, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN, SORGHUM, PASTURES

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Widely scattered fall armyworm infestations have been reported across the northern Piedmont in fescue pastures. Infestation levels in the whorls of corn and sorghum are declining rapidly. Pupation is occurring in 15 Piedmont fields sampled August 13-16. Unseasonably cool temperatures (50-77° F. August 13-16) have retarded population development. Infestations in sorghum heads are below threshold in 5 Wake and 3 Chatham County fields observed. Scouting in sorghum heads should be underway for fall armyworm, sorghum webworm, and corn earworm. Should cool temperatures persist as forecast, development of the fall armyworm population will be retarded. (T. Hunt, Ext.)

SOYBEANS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Oviposition is rapidly declining in southern Coastal Plain soybeans. Larval populations are developing slowly August 13-16 due to unseasonably cool temperatures (50-77° F.). Surveys

conducted in the northern Coastal Plain (Pitt, Halifax, Martin, Washington, and Edgecombe counties) revealed no fields at threshold. However, small larvae were present in all open-canopy fields that were near or slightly passed peak bloom. Larval populations ranged from <1 to 5 small larvae per foot of row. Surveys conducted across the Piedmont reveal no fields approaching threshold.

Surveys August 13-16 revealed fields reaching threshold in Bladen, Robeson, Scotland, Sampson and Cumberland counties. These results indicate that threshold is being met in all of the southern Coastal Plain counties. Populations in the open-canopy fields (at peak or slightly past bloom) are highest, but scattered full-canopy beans in the area are reaching the threshold level. Populations range from 1/2 to 8 larvae (.5-1 inch long) per row foot. Bladen, Robeson, and Scotland counties report the heaviest infestations in the state, averaging 3 large larvae per foot of row. Approximately 350 soybean fields were scouted August 13-16 statewide. Cool temperatures have slowed larval development, increasing the importance of proper timing through scouting. (Pest Management Groups).

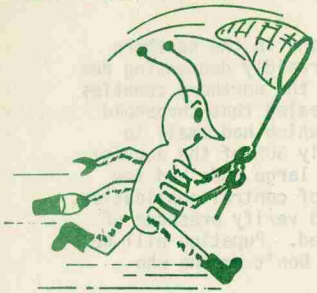
LIGHT TRAP

Collections of corn earworm adults from representative traps revealed the following July 30-August 17.

CORN EARWORM LIGHT TRAP COLLECTION

Location	July 30	1	3	6	August 8	10	13	15	17
Pamlico Co.	125	325	325	125	650	1001+	1001+	1001+	1001+
Sampson Co.	125	735	515	550	430	440	351	54	53
Scotland Co. John's Station	275	480	470	---	550	415	115	36	115
Robeson Co. Midway	205	355	230	---	175	315	270	38	175
Randolph Co.	15	12	5	10	6	4	3	2	3
Halifax Co. Scotland Neck	25	31	550	750					
Edgecombe Co.	16	19	63	175					

AGRICULTURAL EXTENSION SERVICE



INSECT SURVEY NOTES

entomology

August 24, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

SORGHUM

FALL ARMYWORM AND CORN EARWORM (Spodoptera frugiperda and Heliothis zea) - NORTH CAROLINA - Scouting across the Piedmont reveals generally low fall armyworm and corn earworm infestations in sorghum seed heads. Adult moths are emerging from corn and pastures seeking egg laying sites. Blooming sorghum heads are attractive to both the fall armyworm and the corn earworm for egg laying. Infestations in sorghum heads are expected to increase August 25-31. To date, only 2 of 15 fields scouted were at threshold; however, all fields sampled harbored a few small caterpillars. The threshold level is 1 feeding caterpillar of any kind 3/4-inch or larger per head. Sample 10 heads in 3 locations for each 5 acres and 10 heads in 10 locations for fields 20 acres or larger. (T. Hunt, Ext.)

SOYBEANS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - The major insect pest in soybeans continues to be the corn earworm. Peak populations are being reached

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

from Edgecombe and Nash counties south. Field populations in the southern counties of Columbus, Robeson, Bladen and Scotland are rapidly decreasing due to chemical control and pupation. Surveys conducted in the northern counties of Martin, Halifax, Edgecombe, Northampton and Nash revealed that threshold levels are being reached and primarily occur in fields which had small to medium pods August 22-23. This constituted approximately 30% of the acreage that was sampled. Fields in full bloom and fields with large pods had few caterpillars. Scouting is essential for proper timing of control application. In fields with larvae 1 inch or larger, producers should verify presence of caterpillars when a spray application is actually applied. Pupation will be underway across the entire Coastal Plain August 27-31. Don't be one who treats only damage.

Samples from the Piedmont reveal 0 of 10 fields (samples scattered from Lincoln County to Wake County) at the threshold level. However, weekly scouting until large pods is in order. (T. Hunt, Ext.)

LIGHT TRAP

Collections of corn earworm adults from representative traps revealed the following August 17-23.

CORN EARWORM LIGHT TRAP COLLECTION

	August								
Location	3	6	8	10	13	15	17	20	22
Pamlico Co.	325	125	650	1001+	1001+	1001+	1001+	1001+	1001+
Sampson Co.	515	550	430	440	351	54	53	275	
Scotland Co. John's Station	470	---	550	415	115	36	115	49	85
Robeson Co. Midway	230	---	175	315	270	38	175	45	53
Randolph Co.	5	10	6	4	3	2	3	2	
Halifax Co. Scotland Neck	550	750	375	375	175	125		425	
Edgecombe Co.	63	175	225	425	225	85		375	

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INSECT SURVEY NOTES

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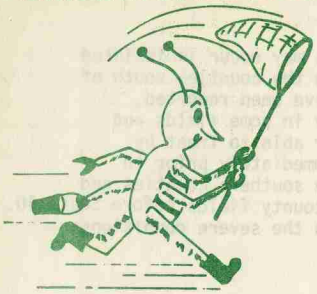

entomology

August 31, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T. N. Hunt

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

PEANUTS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Population levels increased rapidly August 27-30 in peanut fields of the northern Coastal Plain. Defoliation was light to moderate in all fields sampled, but 4 larvae per foot of row were observed in 3 of 10 fields sampled. Both late instar (3/4-1 inch long) and early instar larvae (0-3/4 inch long) were present in all fields. Large larvae are leaving the plants via pupation across the entire Coastal Plain, particularly in the Bladen-Sampson County area. (T. Hunt, Ext.)

SOYBEANS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Larval populations have peaked over the entire Coastal Palin. Hot temperatures have induced rapid development. Threshold levels have been surpassed in 80+% of the fields which had open canopies when they were blooming (approximately 60% of the soybean crop). Population levels range from <1 to 15 per foot of row. Foliage losses to 80% from corn earworms, not armyworms, are occurring in scattered fields from the Edgecombe-Martin County area southward. Severe

defoliation in the extreme northern Coastal Plain counties may occur in isolated fields but is not expected to reach the levels observed in the counties south of Johnston and Wilson counties. Aerial applicator delays have been reported, compounding the problem. Immediate treatment is necessary in some fields and growers should use their tractors. Growers not willing or able to treat by tractor should re-evaluate the conditions of each field immediately prior to aerial application. Pupation is rapidly occurring in many southern counties and is expected to begin reducing the population in northern county fields before Sept. 10. Poor scouting and/or poor control methods have resulted in the severe conditions currently occurring. (T. Hunt, Ext.)

LIGHT TRAP

Corn earworm adult numbers have declined statewide. Oviposition or egg laying for the big third generation is over. Some moths will lay fourth generation eggs, but larvae from these eggs are not expected to have much economic impact. However, late soybeans should be scouted. (T. Hunt, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

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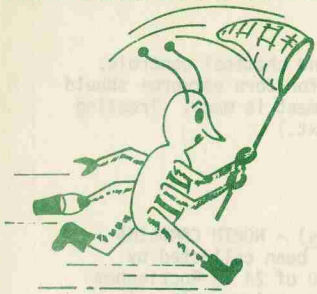


September 7, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TN. H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

EUROPEAN CORN BORER (Ostrinia nubilalis) - NORTH CAROLINA - Lodging resulting from borer damage to the stalk and recent wet, windy weather has been observed statewide. Lodging in excess of 5% should be of economic concern. Fields with 60% stalk breakage have been observed; however, to date the percent lodging in the Coastal Plain is approximately 5%. Lodging is expected to increase greatly under normal weather conditions. Wet weather will accelerate stalk rot in borer-damaged stalks, resulting in rapid lodging. Growers should be encouraged to harvest as rapidly as possible, utilizing available dryers. (T. Hunt, Ext.)

PEANUTS, SOYBEANS

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Corn earworm larvae have virtually completed the third generation. Surveys conducted September 4-6 in Johnston County southward revealed only 3 of 15 high probability soybean fields at threshold. Reports from pest management programs in the northern Coastal Plain counties indicate a few scattered soybean and peanut fields remain at or above threshold. Populations in all infested fields are expected

to rapidly decline September 7-13 due to pupation and chemical controls. Growers that are considering spraying insecticides for corn earworms should be positive the problem still exists before a treatment is made. Treating damage with insecticides is expensive! (T. Hunt, Ext.)

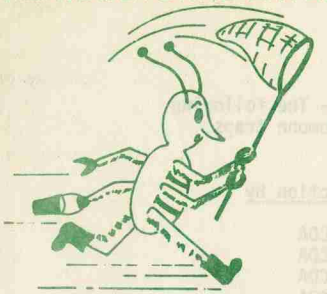
FEDERAL AND STATE PROGRAMS

CEREAL LEAF BEETLE PARASITE (Tetrastichus julis) - NORTH CAROLINA - A cereal leaf beetle larval parasite, T. julis, has been collected by dissection from 10 of 13 larvae in Stokes County, 10 of 24 in Rockingham County, and 1 of 3 larvae in Wilkes County. To date, release sites in North Carolina have only been in Chatham and Vance; however, releases have been made in 5 nearby Virginia counties (Halifax, Pittsylvania, Franklin, Montgomery, and Pulaski). The N. C. recovery indicates the parasite is expanding its range and is infesting cereal leaf beetle larvae in areas sparsely populated with this newly introduced pest of small grains. Biological control of this pest has been very effective in many northern states. (R. Galloway, N.C.D.A.)

Dr. Knight

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES



entomology

September 14, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

EUROPEAN CORN BORER (Ostrinia nubilalis) - NORTH CAROLINA - Surveys were conducted in Edgecombe, Lenoir and Johnston counties September 10-12. European corn borer and rot-weakened stalks have resulted in 60% lodged stalks in 3 of 15 fields observed. The extent of lodging will not be known until current surveys are completed. However, there is a definite difference in lodging potential between varieties, and growers should consider variety and borer damage in addition to the other factors when making decisions regarding harvest. (T. Hunt, Ext.)

SOYBEANS

BEAN LEAF BEETLE (Cerotoma trifurcata) - NORTH CAROLINA - Defoliation to 25% is occurring in pod-filling soybeans. Heaviest concentration of this defoliator was reported September 11-14 from the northeastern counties and the Bladen County area. Surveys reveal approximately 14% of the fields in the Martin-Washington County area and 5% of the southern Bladen County fields have reached the 15% after-bloom threshold. Generally across the state, defoliation is subeconomic but warrants scouting for defoliators and stink bugs. (T. Hunt, Ext.)

FEDERAL AND STATE PLANT PROTECTION PROGRAM

GYPSY MOTH (Lymantria dispar) - NORTH CAROLINA - The following collection of males was made during August from pheromone traps.

Date	# Males	County	Collection By
Aug. 7	1	Avery Co.	NCDA
Aug. 7	1	Avery Co.	NCDA
Aug. 13	1	Avery Co.	NCDA
Aug. 14	1	Avery Co.	NCDA
Aug. 16	4	Avery Co.	NCDA
Aug. 24	3	Dare Co.	USDA

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

September 21, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

COTTON

BOLL WEEVIL (Anthonomus grandis) - NORTH CAROLINA - A heavy buildup of boll weevils is occurring in all N. C. cotton-production areas outside of the northern Coastal Plain (eradication zone). Observations in several northern Scotland County fields last week revealed over 60% egg-punctured squares. In areas where growers had switched to a boll weevil insecticide, damage was relatively scarce. This population buildup will have little impact on the 1979 crop, but low winter mortality could allow economic infestations in 1980. Below are the early September counts by county. (J. Bacheler, Ext.)

County	No. Traps	No. Weevils Per Trap
Montgomery	17	16.1
Hoke	99	11.7
Cleveland	105	10.0
Robeson	291	7.2
Union	11	7.1
Moore	3	5.0
Scotland	523	4.4
Anson	9	3.0

FOREST AND SHADE

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - NORTH CAROLINA - Damaging populations have been identified in several Piedmont counties. August surveys revealed severe conditions in Davidson (140 spots detected), Davie (90 spots detected) and Rowan (80 spots detected). Reports have also been received from Randolph, Durham, Orange, Vance and Cumberland counties. Aerial surveys are currently being conducted to determine the extent of damage. Landowners would be well advised to determine the presence or absence of infestations on their property. Infested timber should be salvaged as quickly as possible to minimize losses. (Doggett, N.C.F.S.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

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September 28, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH.

SUBJECT: Insect Survey Report

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Raleigh, North Carolina

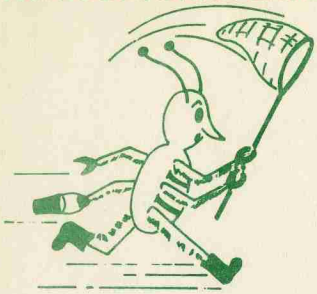
FOREST AND SHADE

INTRODUCED PINE SAWFLY (Diprion similis) - NORTH CAROLINA - Defoliation from this new pest of white pine continues in the Crossnore area of Avery County. Surveys in July reveal the occurrence as far east as Raleigh south to Morganton and north to the Virginia line. Results from a comprehensive survey being conducted were not available at this reporting date. All white pine Christmas tree growers are urged to carefully scout their trees for defoliation, larvae or both. (N. C. Forest Service Newsletter)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

Dr. Knight

AGRICULTURAL EXTENSION SERVICE



INSECT SURVEY NOTES

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October 5, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist Jn. H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

EUROPEAN CORN BORER (Ostrinia nubilalis) - NORTH CAROLINA - Unseasonably wet conditions are inducing rot in corn, particularly stalks excavated by European corn borer larvae. Boring activity has practically ceased in N. C.; however, poor harvesting conditions have contributed to loss from lodging. Surveys conducted in Bladen, Robeson, Sampson, Harnett and Johnston counties September 26-October 4 revealed an increase in % stalks lodged. Lodging in of the 35 fields observed exceeded 50% stalks lodged. The range of lodging was 5 - 75%.

End of Season Note:

This will be the last Insect Survey Note for 1979.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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INSECT SURVEY NOTES

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October 12, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

FRUIT AND NUTS

WALNUT CATERPILLAR (Datana integerrima) - NORTH CAROLINA - Pecan trees which serve as shade and produce nuts annually receive defoliation of 1 or more limbs in scattered localities across N. C. Reports of damage began during early September and escalated toward the peak number of inquiries in mid- to late September. Inquiries reached the average of 4 or 5 per week. Damage is insignificant since leaf drop is natural at this time of year. (T. Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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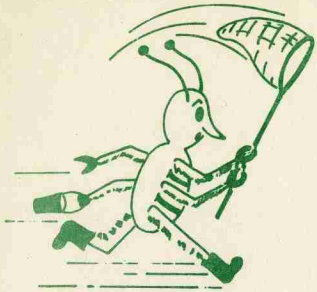

INSECT SURVEY NOTES

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October 19, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TN. H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

CORN

RICE WEEVIL (Sitophilus oryzae) - NORTH CAROLINA - Surveys indicate an increasing weevil infestation level in unharvested corn when left in the field until moisture levels drop below 16% by weight. Surveys in 1977, 1978, and 1979 in 20 randomly selected fields scattered across the Coastal Plain revealed infestations in 60% of the sampled fields. Storage of this grain results in storage loss depending upon period stored and protectants applied during the bin-filling process. (T. Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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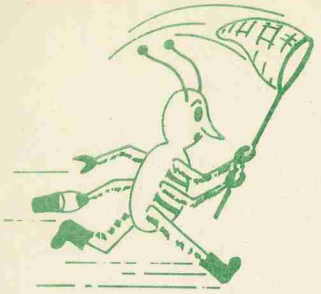
INSECT SURVEY NOTES



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November 2, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

VEGETABLES

PEPPER WEEVIL (Anthonomus eugenii) - NORTH CAROLINA - Infestation of this pest was detected in scattered bell pepper fields across Sampson County. Yield losses of 30-50% were observed in approximately 5 fields. The insect is not known to overwinter in N. C. and is transported to N. C. via plants from Florida each year. (K. Sorensen, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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November 9, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

SMALL GRAIN

APHIDS (CORN LEAF APHID, Rhopalosiphum maidis, and ENGLISH GRAIN APHID, Macrosiphum avenae) - NORTH CAROLINA - Annually corn leaf and English grain aphids attack fall-planted small grain (rye, oats, wheat). Infestations are highly variable from year to year. Surveys indicate scattered heavy infestations are occurring in early planted wheat fields in the Cleveland, Iredell, Rowan County area. Fields have been observed with 50+ aphids per 5-inch plant. These aphids vector barley yellow dwarf; however, symptoms of the disease are most vivid in the spring. (T. Hunt, Ext.)

AGRICULTURAL EXTENSION SERVICE

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November 16, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

SMALL GRAIN

GREENBUG (Schizaphis graminum) - NORTH CAROLINA - Greenbugs were collected during early November from 2 Cleveland County fields of oats. Spots to 1/2 acre were noticeably yellow with a combination of barley yellow dwarf and aphid damage. Farmer was encouraged to replant with wheat. Damage from this aphid is very sporadic in N. C. (S. Gibson, T. Hunt, Ext.)

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

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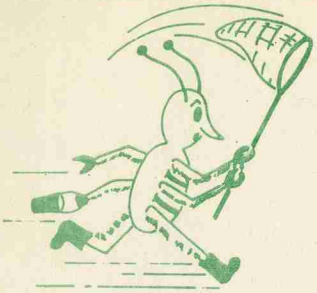
NOV 30 1979

ENTOMOLOGY DEPT.



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November 30, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist TNH

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

MAN AND ANIMALS

ROCKY MOUNTAIN SPOTTED FEVER (vectored by the American dog tick, Dermacentor variabilis) - NORTH CAROLINA - Records on November 28 indicated a rapid increase in the number of Rocky Mountain spotted fever cases in N. C. for 1979. Two hundred forty cases and 9 deaths have been reported to date compared to 204 cases and 12 deaths in 1978 including December. The Piedmont Crescent counties continue to have the highest incidence of the disease. The number of cases in the area has steadily risen with a 130% increase since 1974. The number of deaths continues to range from 7-14 per year.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

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December 7, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

NORTH CAROLINA COOPERATIVE ECONOMIC INSECT SURVEY AND DETECTION REPORT

This report is compiled by: Thomas N. Hunt, Survey Entomologist

Raleigh, North Carolina

FEDERAL AND STATE PLANT PROTECTION PROGRAM

GYPSY MOTH (Lymantria dispar) - NORTH CAROLINA - General collections decreased from 1978 with a total of 18 collections statewide. In Avery County, 23 collections during 1978 led officials to conclude that an active infestation was likely. Insecticide treatments were applied. Only 8 males were collected in the area during 1979. The number of collections has also decreased greatly on the Outer Banks. Eggs, pupae, or larvae have not been detected in either area to date. (T. Hunt, Ext.)

FIRE ANT (Solenopsis invicta) - NORTH CAROLINA - The infestation detected during 1978 in Hyde County near Swan Quarter appears to be under control. Mounds were not observed during 1979 in Hyde, Lenoir or Beaufort counties. To date, infestations are known to occur in the following 12 southeastern Coastal Plain counties: Robeson, Columbus, Bladen, Duplin, Jones, Carteret, Pamlico, Onslow, Brunswick, New Hanover, Pender and Craven. (T. Hunt, Ext.)

AGRICULTURAL EXTENSION SERVICE

INSECT SURVEY NOTES

entomology

December 14, 1979

TO: County Extension Chairmen and Other Interested Persons

FROM: Thomas N. Hunt, Survey Entomologist T.N.H.

SUBJECT: Insect Survey Report

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Raleigh, North Carolina

FRUITS AND VEGETABLES

TUFTED APPLE BUD MOTH (Platynota idaeusatis) - NORTH CAROLINA - The population of tufted apple bud moth began escalating during 1976 and appears to have stabilized at approximately 5% loss from the fresh market grades in the major apple production area, Henderson County. Sporadic infestations have also been detected in Mitchell County, but no reports have been confirmed from the other commercial apple-producing counties. (T. Hunt, Ext.)