

File
Pest Report
Workbook

GENERAL

Compared to last year, general insect activity this Spring was considerably delayed. The Virginia pine sawfly which hatched last year on March 20, first made its appearance this year on April 9th; other insect hatch was similarly retarded. Usually, although late-hatching, they manage to somehow munch overtime to catch up to their year-in-year-out feeding completion date.

Pine looper adults should be flying now (to about May 25). These pine needle feeders have been at low levels for the past two years and surveys indicate another sparse year in 1975.

A 500-acre fall cankerworm spray control project was completed recently on Bull Run Mountain, Prince William County. The Division and the USFS provided technical assistance on the project (using B.t.) over a forested community. Acceptable control appears assured, although final evaluation will not be completed for another 10 days. Other outbreaks of cankerworm continue in Clarke County, Skyland (Shenandoah National Park) and in Northampton County.

Southern pine beetle problems--the fourth successive year of high populations and attendant damage--are already evident. Peak emergence of the overwintering brood occurred about a week later than normal in the Southern Piedmont (May 10). Evaluation of late winter "cut-and-leave" brood trees showed some control on tops of felled trees if fully exposed; emergence was normal in trees in the shade. Felling the trees delayed emergence of adults by 4-5 days; apparently, it is cooler at ground level. The Division plans to evaluate cut-and-leave this summer on a small scale, along with following spot infestations from generation to generation to try and develop a sampling and predicting system (in cooperation with USFS).

Aerial surveys have been conducted in the following counties for SPB activity since last October: Brunswick, Gloucester, Charles City, New Kent, James City-York, Albemarle, Fluvanna, Nansemond, City of Chesapeake, Southampton, Isle of Wight, Lunenburg, Nottoway, the Piedmont State Forests, Louisa, Rockbridge, Surry, Prince George, Dinwiddie, Pittsylvania, Amelia, Greenville and Mecklenburg. Lack of adequate markets still plague the salvage-control program. (See also "Special Reports").

Although the Virginia pine sawfly (*N. pratti pratti*) remains at low levels throughout the State, two other native pine sawflies are expected to cause noticeable defoliation in bayside counties of Gloucester, Mathews and Lancaster (*N. taedae taedae*) and in Westmoreland County (*N. hetrickii*).

Gypsy Moth: The Division is planning to cooperate with the USDA and VDAC in a state-wide gypsy moth trapping effort again this year. Spacing of traps, however, will be wider this year in most of the 12 counties trapped by VDF personnel. An interesting 3-year experimental GM eradication effort is underway on about 1000 acres in and around Dayton (Rockingham County) by the USDA and the VDAC. Saturation trapping (to catch all male moths if possible) will be conducted this summer and possibly for the next several years. This area is the only suspected infestation location in Virginia at this time. The Division parasite rearing lab expects to concentrate on the rearing and release of a pupal parasite, Coccygomimus instigator this summer throughout the State, along with extensive trapping to determine the fate of earlier parasite releases and collecting of native insects to determine their parasite complex. Additional insect parasites received from the USDA will also be released in selected areas.

17 new spots in JAN 75

90% dropped off in Zim's area 5/20/75.

Except Warren + Frederick

COB
R
JAN

A relatively new native insect pest in the east, the hemlock woolly aphid (Adelges tsugae) is causing some concern since its discovery in native eastern hemlock last year in Franklin County! Heretofore, it had been noted as a problem mainly in ornamental hemlock. Particularly concerned are Blue Ridge Parkway personnel. The VDF and VDAC plan to keep an eye on the known infested stands to determine impact.

Cone and seed insect problems in the loblolly seed orchard continue to be an object of concern. Southwide tests in 1974 show consistent control of both cone moths and the seedbug with granular Furidan[®] insecticide; tests continue this year.

Eastern white pine decline, generally in sapling-sized trees planted as ornamentals, has been apparent again in late 1974. On several evaluation efforts, a combination of nematodes and a soil fungus (Pythium) appears to be responsible for the often rapid decline and death. The excessively wet springs we have had the past several years are also suspected as contributing to the problem. Artman is planning some drenches of nematocides and fungicides on specimen trees in the near future.

Needle cast (Hypodermia lethale) on loblolly - moderate this year; more common on shortleaf than last year.

REPORT FROM FOREST DISTRICTS

Coastal Plain: One 2-acre tract (25 years old) in Isle of Wight (500 trees) killed by SPB; also a 13-acre tract (80-90 yr. old) exhibiting total kill. Also 2 acres in Gloucester Co.; ½ acre - Chesterfield, 3 trees in King William, all SPB. Turpentine beetles noted in 6 loblolly pine in King William County, 1 in Westmoreland.

Eastern tent caterpillar scattered over entire counties of Isle of Wight, Spotsylvania, Suffolk, Goochland, Chesterfield and Richmond on cherry; also widespread in Suffolk County. Needle cast of loblolly reported as widespread in Chesterfield Co.; noted also in Prince George, Surry and Middlesex. Fusiform rust reported widespread through Isle of Wight Co. (no mortality); also in 1-acre tract in Prince George Co. Cedar-apple rust widespread in Chesterfield Co.; Pales weevil damage in one newly-planted tract in Westmoreland; yard tree killed by Fomes annosus in Gloucester Co.; Cephauros virescens suspected as causing death of a magnolia in Windsor (Isle of Wight); white pine bark aphid noted 2 locations in Westmoreland County. Mites suspected as causing yellowing of 4-6 trees in Westmoreland; European pine shoot moths reported (not confirmed) in Austrian pine at one location in Virginia Beach.

Piedmont: Southern pine beetle reported in several spots (3 trees to 1/4 acre) in Henry Co.; Eastern tent caterpillar widespread on cherry in Orange, Culpeper, Madison, and Fauquier; Henry County reports infestations on pecan. Spider mites reported on several Scotch pine in Culpeper Co. Turpentine beetle reported one spot in Patrick Co.; Aphids on few trees (white pine & loblolly) in Henry County; Eastern Gall Rust on Virginia pine widespread in Pittsylvania Co. Rainfall: 2.26"-Culpeper, 2.12"-Louisa.

Mountain: Ips bark beetle noted on 25-year-old white pine yard tree in Floyd. White pine aphid reported widespread throughout Floyd.

Special Reports: Total spots located during winter surveys for SPB; Lunenburg-230 new spot infestations; Halifax-225 new spots; Suffolk, Isle of Wight and Southampton-934 spots; Fluvanna - 126 spots; Wootton 117 new spots

White pine blister Rust: During May 1975 we will handle a control project on approximately 100 acres in Grayson County. Pathologists from the Asheville USFS Pest Management office will be in the area to collect Ribes plants and aeciospores of the rust fungus. This material will be returned to the rust testing lab near Asheville. The Ribes and spores will be used in studies to test for disease resistance in white pine of known parentage. Presently the center is working with loblolly and slash pine in an attempt to find crosses resistant to the fusiform rust fungus.

C. L. Morris
C. L. Morris, Chief

Virginia Division of Forestry

FOREST PEST SURVEY REPORT

May, 1975

GENERAL

Southern pine beetle: An early June examination of 21 individual spot infestations in the coastal plain counties of Surry, Sussex, Isle of Wight, and cities of Chesapeake and Suffolk showed beetle populations at a very low level (11 in 18 bark-sampled plots established Nov. 1974 had died out; remainder with only a few newly-attacked trees). Two other spot infestations (not bark-sampled) in Suffolk showed more activity, but one additional spot in Chesapeake was only weakly active. In contrast, a visit to six spots in Pittsylvania Co. showed considerably more action, with 75% of the spots exhibiting a large number of newly attacked trees. Bruce Roberts ground checked 45 spot infestations in Mecklenburg Co. in late May, and found 19 inactive (13 of the 19 in the eastern half of the County). Conclusion: Relatively low southern pine beetle populations in the eastern outbreak counties; much more potential in the Southern Piedmont. Remember, it is yet too early to predict with confidence the population trend, which will become evident by mid-July when brood emerging from the current attacked green trees attack a new batch of green trees.

As a continuing effort to test prediction methods, Copony is establishing additional bark-sampling plots in several counties. These spot infestations will be followed closely from generation to generation to correlate trends with predictions.

Additional air surveys for SPB were made in May in Brunswick (55%), Essex (40%), King & Queen (40%), Middlesex (10%), Mathews (50%), Camp A. P. Hill (West of Rt. 501), Caroline & Spotsylvania (100%). A survey in February in Pittsylvania Co. showed a total of 300 spot infestations. Additional air surveys should be suspended until early July when currently attacked green trees will begin turning color. Ground checks of two suspect SPB spots in Essex Co. showed storm damage, not bark beetles.

23 new(?) spots, 1/2 acre avg.

Last month, I stated that Pine needle cast was "moderately" prevalent - actually it was considerably more prevalent and extensive than usual on loblolly and shortleaf pines on the piedmont and coastal plain. Some individual loblolly pines looked almost denuded (as with pine sawfly defoliation) in late May.

The damp cool Spring has resulted in large amounts of (fungus) anthracnose infection on Ash, Sycamore, and Oak (red & chestnut) in some locations. In addition, the fungus-caused "leaf blister" is quite severe in such areas as Fairfax and the Blue Ridge Parkway, south of Waynesboro; anthracnose on chestnut and red oak is also very noticeable in the latter area.

Susan Phillips

At Augusta Forestry Center, VPI & SU pathologists and a graduate student will be investigating the value of various fumigants, including Sodium Azide and Methyl Bromide, for control of root rot of black walnut suspected of being caused by a soil fungus Cylindrocladium. Control of soil fungi, nematodes and weeds will be evaluated again this year in loblolly pine seed beds by a VPI group at the New Kent Forestry Center.

In response to an inquiry regarding mortality of young (4-5 yr.) loblolly pine on 200 acres of extremely sandy land in Eastern Shore Md., Artman and Copony found unusual rootlet mortality (suspect nematodes), but were surprised to learn in late May that rust fungus was infecting 90% of the trees in the plantation. Further checks revealed that the culprit was the sweet fern blister rust fungus (alternate host: sweet fern or sweetgale) and that damage appeared restricted to the extremely sandy (near Sterile) sites where the sweet fern could survive. This fungus is a long-time resident of the West and the Lake States, and had been reported as present in New Jersey some time earlier. The infected seedlings appear to tolerate a good bit of multiple infections without lethal effects. Since there is no swelling to the infected tissue, the only way to easily confirm infection is to examine young plantations in late May when the orange sporulating aecial stage is readily observed on the pines. The presence of sweet fern, however, would be a suspicious condition worthy to follow-up. Artman is currently conducting a survey of the distribution of the alternate host in Virginia.

Artman's Spot Survey indicated 24.8% of the trees were infected, 20.5% w/ (much infections (45% of trees were infected). New York kills loblolly forest next to...

L-Meuburg Co check of 120g spots showed several small ones died out, at least 2 large ones in vic. Decker then (Coxing) young strong.

Unexplained late fall or winter die-back of tips of shoots of young loblolly pine has been reported from scattered locations around the State (East Shore of Md., Chesterfield, Essex, Caroline, Fluvanna) which appears to be typical of winter injury. The last flush of growth supports only $\frac{1}{2}$ grown needles and no obvious insect & disease damage was present. The early frost of late Sept. 1974, which caused widespread mortality and top-kill to loblolly in Eastern North Carolina, may possibly be involved. Winter burn of loblolly also reported as widespread in Frederick & Clarke Counties.

Damage to scarlet and red oak by the Oak leaf tier (*Croesia albicomana*), the prediction of which was based on a winter egg survey, was rather low as predicted in the areas where it had been active previously in Smyth Co. In western Highland Co. defoliation was moderately severe. Pupae and late instar larvae were present May 23 in Smyth Co.

A new face (but more important, 2 hands) has been added to the Insect & Disease Staff. Bruce Roberts, our SPB field hand has been replaced by Jimmy Wagner, a recent graduate of VPI & SU. Roberts was transferred to District 4 to a salaried position as forester. Wagner will spend the summer assisting the Districts in worst need in Air Survey, spot location and landowner contact. Hopefully, half of Jim's wages will be paid with funds from a proposal for SPB control submitted this week to the USFS (\$9,500 requested). *(7,250 is the total funded by late June '75)*

A special cost-sharing practice to assist landowners in control of small spot infestations of the SPB in 15 pilot counties in Virginia by employing "cut & leave or "cut & spray" was considered under FIP & ACP, but was rejected by the Washington Office.

Final evaluation of the fall cankerworm spray project (500 acres in Prince William Co.) showed marked reductions of populations within and outside the spray area; population decline also noted in the two other outbreak areas at Skyland and Clarke County. An aerial survey of June 13 indicated: 80 acres of moderate defoliation at Bull Run (Prince William Co.); two areas, totaling 50 acres of moderate defoliation Clarke Co.; 10 acres of moderate, 40 acres of light defoliation at Skyland. The remainder of the defoliated areas was too light to be readily discernible from the air. A coincidental fish kill 4 miles from the spray area at Bull Run occurred again this year, and was found to have been caused by spawning stress and disease (State Water Control Board).

REPORTS FROM FOREST DISTRICTS:

Coastal Plain: Southern pine beetle reported active in spots varying from two trees to 25 acres in Va. Beach; up to 200 trees in Suffolk. Single spot of 25 acres noted in Hanover, also occasional spots to $\frac{1}{2}$ acre in Penola, King William, Gloucester, Middlesex and Holland. Turpentine beetles show expected seasonal increase following population build-up in SPB-killed trees (infesting loblolly pine on 2 acres in Lancaster Co.).

Pine Sawfly defoliation evident over 20 acres of loblolly pine in Westmoreland Co.; 8 trees in Gloucester; 3 in Essex; from 6 - 10 trees in Hanover, King William & Lancaster. Needlecast (*Hypodermia lethale*) widespread throughout coastal plain on loblolly. Pine Spittlebug more noticeable this year; widespread in Powhatan & Richmond counties; some activity also in Va. Beach, Mathews and Gloucester.

Anthraxnose noticeable on 10 trees; Scale insects noted 30 trees, Gloucester. Dutch elm disease diagnosed in 3 trees in Brunswick Co.; two elms in Hanover.

Rabbit damage reported on 10 acres, Va. Beach. Aphids affecting 3 white pines in Brunswick, active on maple in LaCrosse & South Hill, also on unspecified hosts (9 acres) in Chesterfield and 2 trees in Ashland.

Piedmont:

Southern pine beetle remains active in spots - one tree to one acre in Appomattox, Prince Edward, Fluvanna, Louisa. Turpentine beetles active in 5 trees, Appomattox Co. Tip moth noted throughout 35-acre plantation, Patrick Co. Eastern tent caterpillar reported throughout Prince Edward and Lunenburg Counties.

Cicada presence confirmed in Orange and Culpeper Counties (widespread in Culpeper).

Fall cankerworm noted on shade trees on location, Loudoun Co.

Needle cast of loblolly and shortleaf pines quite obvious through Southern Piedmont, (Prince Edward, Mecklenburg, Halifax, South Hill, Lawrenceville, Fluvanna).

Leaf-blister on scarlet oak widespread throughout Northern Virginia. Anthracnose affecting four trees, Fauquier Co.

Pine sawflies reported widespread (light damage) in Pittsylvania Co.; defoliated one tree in Lunenburg Co.

Dutch elm disease reported on single tree in two locations in Mecklenburg County; one in Lunenburg.

Hickory gall aphid causing concern by infesting scattered individual trees several locations via Charlottesville and Fairfax Co.:

Mice causing death of occasional Virginia pines several locations in Fairfax Co.

Rainfall for May: Culpeper 6.21 inches; Louisa 3.22.

Mountains:

SPB active on 25 acres in Botetourt Co. and in Rockbridge Co. Ips bark beetles killed one tree Floyd Co.; 2 spots Frederick Co. Aphids prevalent on white pine yard trees in the mountain counties.

Pinoak Sawfly reported on 3 black and white oak in Bath Co.

Needle cast evident on six pines Franklin Co. Pine spittlebug noticeable numerous locations, Rockbridge & Bath Counties.

Winterburn reported as widespread on loblolly pine in Frederick and Clarke Counties.

June 17, 1975



C. L. Morris, Chief
Insect & Disease Investigations

VIRGINIA DIVISION OF FORESTRY

FOREST PEST SURVEY REPORT

June, 1975

GENERAL:

The pattern of southern pine beetle activity is beginning to emerge with the first of the season's air surveys. In Isle of Wight County, (SE Coastal Plain) the beetle appeared active in a number of older spots (1-5 trees), but few new spots noted; in Chesterfield County: 30 active spots, average ½ acre each; June 30 survey of Central Sussex and East Dinwiddie County showed only a few older spots with 2-3 new trees, scattered small infestations, while heaviest infestation in South triangle of Sussex.

Recent information from the SE area office, USFS, indicates that EPA is planning to announce the cancellation of all uses of BHC and Lindane insecticides in the near future. This action would place the direct spray programs in a number of states in jeopardy since there is no other material labeled for such use at this time; DURS-BAN is a prospect for use next year if registration is obtained.

A cut-and-leave evaluation in seven small spot infestations (2-15 infested trees per spot), felled in early June when larvae were small, showed 50-90% reduction in beetle brood emergence, depending on degree of exposure to the sun. Larvae in most cases (except direct exposure) developed to maturity but failed to emerge; in no case did the infestation continue in the treated spots. The Texas Forest Service is recommending the cut-and-leave approach to landowners there, provided other more effective methods are impractical. The VDF plans to continue an evaluation of the cut-and-leave method on a small scale this summer; additional data from a USFS sponsored evaluation with the North Carolina Forest Service should be available later this summer.

The VDF received 32,000 dollars for "Improved Harvesting" (getting more wood to market) which will employ two additional foresters this year to strengthen contacts between landowner and wood cutter.

Artman & Copony are in the final phase of the gypsy moth parasite collection in New Jersey. Two exotic fly parasites will be overwintered in place in NJ and returned next Spring for emergence and release in Virginia.

The Virginia Department of Agriculture and Commerce and the USDA have "set" 11,280 gypsy moth traps in a 20 square mile area in and around Dayton (Rockingham County) plus 500 additional traps in the remainder of the county, in an effort to eradicate a suspected infestation there.

An oak sawfly (Caliroa sp.) is causing extensive defoliation over an estimated 16,000 acres in SW Virginia (mainly NE Washington County), greatly expanding its activities compared with last year.

Oxidant injury (probably ozone) was reported in mid- to late June in the mountains of North Carolina alerted us to possible problems in Virginia. By July 6, however, only light damage was evident in the western mountains, although mast meter readings of ozone in three mountain locations maintained by VPI & SU showed moderately high readings in late June and on July 3.

A second year of evaluations on insecticide dips to prevent damage by the Pales weevil met with disaster again this year due to inadequate damage for evaluation. Although weevil populations were high in early Spring, the operational planting of the area surrounding the test area with dipped seedlings apparently sufficiently reduced populations to prevent a good test. Using IMIDAN at high rates (8 & 12%) to test for phytotoxicity resulted in 5 dead seedlings (of 40) in 8% treatment, 3 (of 40) dipped in 12%.

Plans for registration of pesticide operators is progressing: VDAC will supervise program, extension will conduct the training of both "private" and "commercial" operators who will be using restricted pesticides. Unfortunately, until the final listing of restricted pesticides is published by EPA, operators will not know whether they will be required to be registered. A series of short training meetings for private operators is being planned this winter throughout the State.

Locust leaf miner damage extensive again this year; a twig canker of chestnut oak caused by Botryodiplodia quite apparent this year (particularly on the Blue Ridge). Pine sawfly activity in Mathews & Gloucester Counties was reported as occurring one month later than last year and much reduced over the past two years; all activity occurred in same general locations as last year. A new infestation of 8 acres by a possible different sawfly was noted near James Store in Gloucester Co. The infestation in Lancaster County was also less intense this year.

Coastal Plain

Southern Pine Beetle reported in Henrico Co. on 1-4 trees in 3 locations; Isle of Wight County contains 10 reported new spots, also 2 small spots of 1 & 10 trees and 1½ acres of approximately 100 trees. Half acre reported in Suffolk; 2 trees killed near Capron. Richmond Co. reports 1 & 2 acres in 2 locations. One tree reported killed by Ips beetle in Sandston. Turpentine beetle noted in King William Co. on 1 & 2 trees; 2 trees in 1 location in both Hanover & Brunswick Co. Locust leaf miner noted throughout counties of Essex, Richmond, Chesapeake, King & Queen & Bowling Green. Pine sawfly reported causing damage in Gloucester at 2 locations (1 tree & 2 acres). Mathews County also reports damage at 2 locations on 1 tree & also 2 acres. Lancaster Co. reports 3 acres with light infestations. One acre with 50% defoliation reported due to tip moth damage in Sandston. White pine aphids reported in Isle of Wight on one tree. Three trees heavily infested with aphids in Richmond Co. Sycamore lacebug is causing leaf damage to 2 trees in Chesapeake. Woodpecker reported causing detrimental effects to a tree in Henrico Co.

Needlecast noted on one - 600 trees: Hanover: 600, Lancaster: 200, Isle of Wight: 3 locations - 15 each, 20, Gloucester: 3 & 2 trees, Brunswick: 2, 3 & 5, Henrico: several trees, Prince George: 6. Dutch elm disease on 1 tree in Brunswick. Newport News reports 1 tree with Phylloxera caryacaulis. Kermes spp. causing 5% leaf drop on one water oak. Powdery mildew observed on 2 trees in Waverly. Black knot active on 10 trees scattered over County of Hanover. Fusiform cankers reported on loblolly pine in south Courtland. Rot in 2 white oak trees in Isle of Wight. Forty acres of loblolly pine have terminal leader killed; cause unknown.

Piedmont

SPB active in 3 trees, one acre in Albemarle; also 10 trees with past beetle damage; several trees reported near White Hall. One tree housing active brood of Turpentine beetle at Free Union; Louisa Co. ½ and 1 acre (2 locations); 2 acres in Prince Edward Co.; 5 acres in Fluvanna County. Sawfly in 7 trees in Halifax. Pine Bark Aphids on 2 & 12 trees in Halifax; on 2 & 5 ornamental trees in Fairfax; 10 trees in Loudoun. Aphids on several black, scarlet, red and white oak in Fairfax; Woolly aphids on 2 silver maple near Huddleston. Fairfax also reports Hickory Gall Aphids on 2 trees. Wasp galls reported on 2 oak trees with 10% defoliation in Fauquier Co. Heavy infestations of locust leaf miner reported widespread in Nelson, Albemarle, Campbell, Amherst and Bedford Counties. Cankerworm infestations heavy on oak, hickory and birch in Bedford Co. on 640 acres. Bagworms reported in Culpeper and Halifax Cos. Leaf roller on one pin oak yard tree in Mecklenburg. Mice reported in Fairfax Co. as killing Va. pine in fields at 2 locations. Pine tip moth noted in Fauquier Co. on 8 scotch pine. Minor damage caused to Va. pine by spittle bug throughout Orange Co. Slight damage caused to one silver maple by green striped maple worm. Needlecast reported on 6 trees and along roadside in Halifax County. Dutch elm disease reported in Loudoun Co. (2 locations) and Fauquier County (3 & 7 trees). Black knot on 3 trees in Halifax. Slight damage to scarlet oak caused by leaf blister fungus in Fairfax County.

Anthracnose in Marshall (Fauquier Co.) on 1 hickory tree and 2 oak trees in Buckingham. Botryosphoeria ribes reported from Bedford Co. on redbud; minor damage but widespread over north side of county. Taphrina courulescens fungus in ½ acre red oak causing slight damage in Fairfax.

Rainfall: 11.27" in Louisa; Culpeper 6.67"

Mountain

SPB reported in 2 & 7 trees in Roanoke & Franklin Counties, respectively. Ips beetle reported in Giles (2 trees), Floyd (1 tree), and Pulaski (1 tree). Black turpentine beetle reported on 1 tree in Floyd County causing death. Bagworm on 3 Arborvitae trees in Franklin County, on cedar in Frederick County (scattered). White pine aphids on 100 trees in Franklin County (heavy infestations). Pine tip moth reported in Augusta County on loblolly pine. Rockbridge area reports white pine weevil in small scattered spots. Aphids on poplar in Augusta County (slight damage). Cankerworm and tent caterpillars reported in Frederick County on oak. Locust leaf miner numerous in Rockbridge. Borers on dogwood reported at one location in Augusta causing severe damage to lower trunk. Dutch elm disease in Frederick County reported in one spot causing 15% defoliation. Windburn on loblolly in Frederick County on 20 trees has caused 5-10% defoliation. Grayson County reports early defoliation and then new growth on 5 red oaks caused by hail.

Rainfall: Staunton - 4.18"

C. L. Morris

C. L. Morris, Chief
Insect & Disease Investigations

July 15, 1975

FOREST PEST SURVEY REPORT
VIRGINIA DIVISION OF FORESTRY

July, 1975

GENERAL:

Southern Pine Beetle: Indicators of static or, in some cases, declining populations were reinforced with extensive July air surveys. The general outbreak area remains the same. The table below summarizes the survey activities since our June report.

Aerial Survey for SPB - July 1975

County	% Survey	# New Spots	Average Size
Augusta	5	15	10 trees
National Forests (S. of Waynesboro)		36	
Brunswick (N)	55	23	½ acre
Suffolk		140	
Isle of Wight	70	{ 86 }	Small spots near old ones
Southampton		55	
Bedford	80	83	½ acre
Prince Edward	100	20	few trees to several acres
Charlotte	95	145	1/10 A. - 20+ acres
Lunenburg	60	187	few trees to several acres
King William	35	35	1 tree
Greenville	70	7	½ acre
Chesapeake & Va. Beach	50	16	Small; 2 over 10 acres
Pittsylvania	60	130	few trees to 1 acre
King & Queen	50	3	1 tree to 8-10
Essex	15	4 (caused by lightning)	
Westmoreland,			
Richmond	100	2 (Westmoreland)	small
Northumberland	25	0	0
Lancaster	40	2	7-8 trees (Ips or Turpentine)
Nottoway	100	25	less than ½ acre.
Nelson	30	7	-
→ Louisa	80	81	-
Albemarle	60	40	5 trees
Orange	5	5	-
Fluvanna	100	33	1/10 acre
Spotsylvania	100	0	-

Bark sampling to predict beetle population trends continued in July, with randomly selected small spots visited and sampled in Pittsylvania (7); Suffolk (2); Isle of Wight (4), Sussex (6); also plots in Brunswick and Lunenburg Counties in August.

Gypsy Moth: Male moth catches have been exceedingly sparse this summer in Virginia, reflecting a hangover from the general population collapse of last summer in the NE. and, to a much lesser extent, fewer traps per county in many areas of the state this year. Catches to date (confirmed): Accomac - 3; Northampton - 2; York - 1; Isle of Wight - 1; Suffolk - 2. The concentrated trapping endeavor in Rockingham County aimed at eradicating a suspected incipient population of gypsy moth near Dayton (Rockingham County) has not produced any male moths to date. In North Carolina, a total of six male moths taken to date in traps, four in the Duck area of Dare County (outer banks south of Virginia Beach).

White pine blister rust: Severt has completed his preplant and postplanting exam of white pine plantations established in winter 1974-75. A total of 102 plantations were checked for the presence of Ribes bushes in the postplanting exam, 84 of them in SW Virginia (D-6). Total number of planted trees: 444,000.

Several new infestations of fall cankerworm reported via various agencies last month: Giles County, 50% defoliated (Buck Mountain near Mountain Lake); Bedford County (near U. S. Air Force radar installation, in same area where cankerworm active in 1964-1966). The Bedford County defoliation is on the Jefferson National Forest and reported to be 500-1000 acres in size by the USFS (air survey in late June 1975).

Oak Sawfly defoliation in SW Virginia: defoliation of red and white oaks (and other tree species in mixed oak stands) expanded considerably this year in Virginia and in adjacent states to the west. Kentucky reports an estimated 1 million gross acres with oak sawfly damage this summer. In Virginia, an aerial survey of state, private and federal lands showed 104,650 acres of visible defoliation in Districts 5 and 6. Because of preference for red oaks, defoliation is scattered and most often evident in small groups. The larval stage was almost non-existent in Hyters Gap on July 23 1975; at least one additional generation is expected yet this summer.

Oak leaf tier defoliation: A July air survey for Croesia albicomana in District 6 (SW) (20-50% defoliation) indicated 43,750 acres were involved (state, private and federal lands).

The annual oak wilt survey (four 7.5 minute quads in Washington County, 4 in Rockingham County) has been completed by Severt. Five active spots noted on 2 quads in SW. Thirty-five individual spots (1-6 trees/spot) noted on 4 quads, 16 of them on Little North Mountain, a "hot-spot" of many years' standing. Disease incidence did not increase over last year.

Coastal Plain

Southern Pine bark beetle has been reported from 2 locations in Chesterfield: 25 trees and 3 acres (100% mortality). Moderate mortality occurred within a 16-acre tract in Hanover County. Westmoreland reports 6 trees dead or dying on 2 spots. Turpentine beetle reported: 1 yard tree + scattered 2 acres - King William County; 3 trees - Virginia Beach; 4 trees - Chesapeake plus ½-acre homesite; 1 tree each at Gloucester and Chesterfield. Ips beetle reported on 15 trees - Lancaster; 8 trees - Northumberland; 4 trees - Isle of Wight. Pine tip moth reported on 3 and 9 trees in Accomack County, 16 trees in Northampton County. Locust leafminer widespread. Tussock moth larvae noted on loblolly pine as well as maple and skeletonizing other understory near Zuni (Isle of Wight County). Chesterfield County reports Bagworm on 9 Arborvitae (75% mortality). Thirty percent defoliation caused by Galls on scattering hickory trees in Powhatan. Leaf galls causing minor damage to one pecan in Chesapeake. Aphids on 1 tree in Chesterfield. Walnut Sawfly found on 3 trees in Richmond County. Flat-headed wood borer in pine firewood in Isle of Wight. Red maple leaf feeding larvae causing minor defoliation to 1 tree in Montross. Four loblolly pine yard trees attacked by red-headed pine sawfly in Gloucester County. Green oak caterpillars on 1 tree in Richmond County.

Fomes annosus was found in 2-acre stand of loblolly pine in Lancaster County and 1 cedar killed in Chesterfield. Leaf blight reported on two magnolia trees.

Piedmont

Southern Pine Beetle reported (from aerial survey) in Bedford County on approximately 54 acres (86 spots). Forty new spots, averaging 4 trees each, in Albemarle County. Sixteen acres reported having 50% mortality in Nelson County. Damage reported on 1/4 acre in Louisa County. Pine tip moth reported one location (vicinity of Charlottesville) in Albemarle County in 3-acre loblolly plantation; 90% infestation. Also, several acres reported in Fairfax County. White pine weevil damaged 50% of 2 trees in Fauquier County. Ips beetle reported in Halifax County on ¼ and 1½ acres at 2 locations. Several trees defoliated due to sawfly damage in Fauquier and Fairfax Counties. Locust leafminer widespread thru Nelson, Fauquier, Orange, Albemarle,

Bedford, Amherst, Cumberland, Madison, Green, Fairfax and Culpeper Counties. Bagworm in Fairfax County in 14 areas on white pine, cedar and arborvitae. Also minor damage to cedar and yews in Culpeper and juniper in Fauquier. Japanese beetles on many trees and plants in Fauquier; green-striped maple worm in Madison; Fall webworm in Bedford on 2 trees; Sapsuckers in Mecklenburg on shortleaf pine; elm leaf beetle on 1 tree in Halifax; aphids in Halifax on 2 trees and several trees in Fairfax; Columbian Timber beetle on sycamore in Fairfax County.

Dutch elm disease found in 1 tree in Fairfax County and 2 yard trees in Farmville. Anthracnose found on 1 white oak in Buckingham, County-wide in Bedford and Amherst. Maple bladder gall scattered in Fairfax County. Southern half of Amherst County reports leaf and stem fungus on oak. Twig blight found on 10 cedar trees in Fauquier. Needle cast on 1 tree in Halifax.

Mountain:

Southern Pine Beetle in Roanoke reported on white pine; also, several spots on Virginia, shortleaf, and pitch pine in Rockbridge, 6-12 trees and 7-8 trees in Augusta and 1 spot of pitch pine attacked. Oak sawfly on red and black oak in Bland, Russell, Washington, Tazewell and Smyth Counties. Red-headed pine sawfly on 1 tree in Floyd County. Fall webworm on cherry and hickory (high populations) in Floyd County, Frederick, Bath, Rockbridge, Montgomery, Giles and Pulaski. Locust leaf-miner reported throughout all mountain counties. White pine weevil on yard and roadside plantings; also 3 spots in Rockingham County. Ips beetle on 3 trees in Giles County; bagworm on 1 acre of white pine in Rockingham; Forest tent caterpillar on cherry in Augusta (5 trees); eastern tent caterpillar scattered in Frederick County; Borers in 3 white ash trees in Augusta; oak galls on 6 trees in Augusta; Japanese beetles in Montgomery County on apple, willow and ash, on sassafras in Frederick. Pine spittle bug on white pine in Giles County (widespread). Oak looper (cankerworm) in Giles County on many trees. Anthracnose on oak (widespread) in Highland County causing severe damage. Nectria canker on 2 walnut trees in Highland Co.

Dutch elm disease reported scattered in Rockbridge and 3 yard trees in Warren County. Slime flux on elm (1 yard tree) in Warren County.

Rainfall: Staunton - 2.56".

August 14, 1975

C. L. Morris

C. L. Morris, Chief
Insect & Disease Investigations

VIRGINIA DIVISION OF FORESTRY

FOREST PEST SURVEY REPORT

August 1975

GENERAL

A reconnaissance-detection flight in Rockbridge County on September 11, 1975 revealed active and extensive damage continuing along the western slope of the Blue Ridge from Waynesboro South (SW Augusta County) to Glasgow (Rockbridge) by southern pine beetle. An estimated 80% of the spots noted were still active (yellow-brown trees in large numbers now evident) and excluding the totally devastated area west of Glasgow, average spot size was 3 acres. The worst area on private land was on Virginia Game Commission lands on the western slopes of Forge Mountain and on the west slope of the mountain east of Lake Merriweather.

A flight over the Piedmont State Forests on September 10 showed: 30 spots (average 20 trees) on the Prince Edward State Forest; 20 on the Appomattox-Buckingham SF (average size 5 trees); three on the Cumberland (5 trees each). District personnel conducted surveys in the following counties since the last Pest Report in July:

Piedmont

County	% Survey	# New Spots	Avg. Size
Amherst	30	4	1/4 - 1/2 A.
Buckingham	10	4	less than 1 A.
Campbell	100	179	0.8 A., mainly in SW
Powhatan	100	20 + 5 old active	5 trees - 1 A, avg.
Rockbridge	15	20 + 20 old	0.5 A.

Coastal Plain

Accomac-Northampton	50	2	-
Charles City	85	30	8-10 trees
James City	80	12	6 trees
New Kent	80	15	5 trees
Gloucester	100	37 active	less than 1 A.
Mathews	100	0	-
Goochland	60	3	less than 1 A (27
Essex, King & Queen, Middlesex	50	3	old spots

Dr. Maki of N. C. State, who is conducting research on the effect of flooding around Kerr Reservoir (Mecklenburg Co.), indicated a recent survey flight of the northern (Va.) edge of the reservoir supported 200+ active spot infestations. The VDF survey of Mecklenburg County, showing 70 new spots in the western 1/3 of the county (that portion surveyed to date).

Two additional I & D assistants report to work on September 16. Al Hundley, a 1974 graduate of VPI & SU, will be assigned to assist in SPB control (with emphasis on increasing salvage) in Pittsylvania County, while Wayne Bowman (VPI & SU, 1975) will assist in Halifax County. Jim Wagner, already up to his hips in SPB control in the Portsmouth area, will be shifted to Lunenburg on September 29. An evaluation of active small SPB spot infestations conducted by WESTVACO on their land in Pittsylvania Co.--felled in mid-July when larvae small, examined on August 22--showed less than satisfactory results. In spite of effective efforts to expose the felled stems of infested trees fully, sufficient emergence resulted in new attacks on 5-6 trees in each spot. Although emergence was noticeably reduced by the felling, results were not as promising as earlier season evaluations in Halifax County reported earlier.

Gypsy Moth: Adult male moths were taken for the first time in Greensville County, in Brunswick County and from King William County. According to our files these are 3 new county records. Males trapped from areas previously known to be infested include: Smyth County, Loudoun County and Fauquier County. A male moth was also collected from Accomac County on August 25, 1975. (Reported 9-12-75, Cooperative Extension Ser.VPI & SU.

During the current ^{or winter} summer season the parasite lab has reared and released an average of 4,000 specimens of Coccygomimus tourimellae a C. sp. in Albemarle, Greene and Madison Counties. Another gypsy moth parasite, Meteorus pulchricornis has been successfully reared on small wax moth larvae in the lab, although males predominated in the offspring. Efforts will be made this winter to perfect this promising development. Trapping efforts this summer in three locations near Charlottesville using McPhail, malaise and wax moth traps to capture potential parasites, has yielded no exotic GM parasites, although wax moth pupae in screened traps in the SW (Washington County) yielded the native Brachymeria ovata, but not the exotic B. intermedia release there earlier. Several native Coccygomimus species have also been trapped.

Scattered black oaks showing marginal and patchy browning of the leaves in Nelson County showed extensive rust infection (no doubt the pine rust, Cronartium quercuum).

Nantucket pine tip moth damage to young planted pines in Virginia noted as being more severe this year than usual in the Valley (Shenandoah County) and in Piedmont Counties. In one valley plantation as much as 8" tip kill was observed on 4-year-old loblolly.

Attempts to re-trap the pine sawfly cocoon parasite, Dahlbominus fuscipennis, released last year in several locations in Lancaster, Westmoreland and Mathews Counties were unsuccessful.

In continuing pine seed orchard studies, the evaluation of the systemic insecticide, Furadan, has produced promising results for control of the seedbug at our New Kent orchard. Seedbugs are able to survive less than a week on loblolly pines treated with Furadan 6 months earlier (February). Bugs caged on untreated trees survive several weeks.

Coastal Plain

Southern pine bark beetle reported in New Kent on 6-12 trees; 10-20 trees in Charles City and 4-6 trees in James City. SPB have caused 90% mortality in 6-acre loblolly pine stand in Courtland; 3 acres killed in Chesterfield. Eight trees in pasture killed, 17 trees attacked in Accomac and 13 trees attacked after lightning injury in Essex County. Numerous yard trees damaged (1 in most instances) in Gloucester, Suffolk, Fredericksburg, Norfolk, Courtland and Virginia Beach. Ips beetle reported on Loblolly and Virginia pine in Lancaster - 15 trees; Chesterfield - 5 trees; Windsor - 1 tree. Turpentine Beetle observed in 2 locations in Suffolk - 1 & 4 trees; Virginia Beach - 1 & 3 trees. Pine tip moth reported having moderate infestations on 50 acres in Richmond County and 1-year seedlings in Suffolk. Fall Webworm reported on pecan on 1 & 2 yard trees in Virginia Beach; 2 trees in King & Queen. Bagworm noted on 2 spruce in Windsor on 2 trees. Mites on 10 trees in Westmoreland County. Cynipid gall wasp on 3 trees in Colonial Beach, tussock moth on maple in Chesapeake, and mouse damage on 4 5-year-old Virginia pine.

Dutch Elm disease reported on 20 trees in Chesapeake County. Needle cast on 3 loblolly, and pitch canker on 2 trees in Halifax County. Anthracnose reported in 1 location in Coles Point and Montross, and scattered throughout King and Queen County. Wilt on 1 maple in Halifax County.

Piedmont

Southern Pine Beetle reported from 3 locations in Albemarle County; on 2 shortleaf, 5 Virginia pine, and 4 Virginia pine. Two trees attacked in Fairfax County. White pine weevil noted on ornamental and highway plantings. Ips beetle reported on one and five trees in Albemarle County (2 spots). Locust leafminer reported in Bedford Countywide. Eastern part of Culpeper County experiencing general widespread populations of lace bug. Elm leaf beetle reported common throughout Amelia County

and on 10 trees in Henry County. Slight damage caused by pitch canker in Prince Edward County. Catalpa worm found on 1 tree in Bedford County. Orange striped oak-worm on three trees in Bedford. Fall webworm on cherry in 2 spots in Nelson County - 6 and 10 trees. Bagworm on 5 cedar trees in Amherst. Anthraco in Campbell and Lynchburg, 1 oak and several trees. Trees in western part of Nelson County affected by leaf blister. Aphids on 1 Pine in Bedford County. Leaf-skeletonizing of red oaks in Nelson County.

Rainfall: Salem - 5.90".

Mountain

Southern Pine Beetle in numerous spots of 1/10 - 4 acres in Rockbridge County. Japanese beetle on various species in Frederick County. Pine tip moth on loblolly in Clark and Frederick Counties - 10 and 6 trees. White pine weevil in Montgomery, Giles and Pulaski. Ozone damage in Frederick County to white pine. Fall webworm on numerous species in Page, Shenandoah, Warren, Clarke, Frederick, Rockbridge, Bath, Franklin, Roanoke, & Wythe County. Locust leafminer in Rockbridge, Frederick and Clarke on numerous trees. Orange striped worm on several oak in Augusta. Army worm reported on oak in Frederick County. Oak sawfly on red oak group in Bland, Smyth, Washington, Russell, Tazewell, Wythe Counties. Elm leaf beetle on one tree in Franklin County - 25% defoliation.

Anthraco reported on Sycamore in Clarke County causing 5 - 100% defoliation. American Elm and Slippery elm experiencing attack by Dutch Elm Disease in Wythe, Lexington and Warren Counties. Dry weather cause of death of white pine seedlings.

Rainfall: 2.73" - Staunton; Abingdon - .59"

Miscellaneous:

Nematodes - Westmoreland - 1 tree	Unknown - Halifax - 1 white pine
Carpenter ants - Colonial Beach - house	Anisota Sp. - Chesterfield - 1 red maple
Japanese beetle - Chesterfield - grapevine	Datana Sp. - Chesterfield - 1 red oak
Twig pruner - Chesapeake - 2 water oak	Wh. marked-tussock moth - Chesapeake-maple
Catalpa Sphinx - Richmond - 1 tree	Endothia - Lynchburg - Pin oaks
Tiger Swallowtail - Spotsylvania -	Lady mites - Culpeper - Azaleas
Mouse - Halifax - 4 trees	Witches Broom - King & Queen - 1 tree
Cynipid wasp - Colonial Beach - 3 trees	Black knot - King & Queen - widespread

C. L. Morris
C. L. Morris, Chief
Insect & Disease Investigations

17 Sept 50

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VIRGINIA DIVISION OF FORESTRY
FOREST PEST SURVEY REPORT

September, 1975

GENERAL:

The Southern pine beetle remains static at moderately high populations in the south-central piedmont, increasing slightly in the central piedmont (where it has been relatively stable at low levels over the past two years) and remains stable at moderate population levels in the coastal plain counties.

Aerial surveys for SPB since the last Pest Survey Report on September 17:

COUNTY	FLIGHT DATE	COVERAGE	# NEW SPOTS	AVG. SIZE (A)
Halifax	August 5	30%	100	0.75

Fall foliage coloration has resulted in cessation of surveys until mid-December or thereafter.

The evaluation of bark sampling to predict SPB population trends continues in the South-central Piedmont counties. A visit to two spot infestations in the foothills of the western slopes of the Blue Ridge in SE Augusta County revealed alarming ratios in the bark samples collected there: Attacks to emergence ratio average 1:20. Ratios in the Piedmont have been running at the maximum 1:8, averaging 1:4, by comparison.

A new area of SPB activity was located by Severt in Scott County (SW Va.). A total of 14 spot infestations were plotted on five USGS 7.5 minute quads (Kingsport, Church Hill, Gate City, Mendota, Hilton) ranging in size from 0.1 to 1.5 acres. All were active when ground checked. It would appear the increasing activity of the SPB in mountain areas constitutes one of the major potentials for 1976. A USFS aerial and ground evaluation of SPB activity in early October on the Glenwood District, Jefferson National Forest, Virginia (Botetourt and Rockbridge Counties) shows continued high activity in the northern quarter of that District. Extensive damage continues on the adjacent District to the north on the George Washington National Forest.

Selective sampling of SPB damage from the March 1975 VDF flight in Lunenburg County (273 new spots ground-checked in August 1975) revealed:

Avg. Volume Per Spot	Average Spot Size	% Salvaged	% Active
29.8 std. cords	1.13 Acres	14%	44%

(includes isolation strip)

A similar survey in Fluvanna County (flight of 7/10 ground checked in July and August) indicated; for the 33 new spots located:

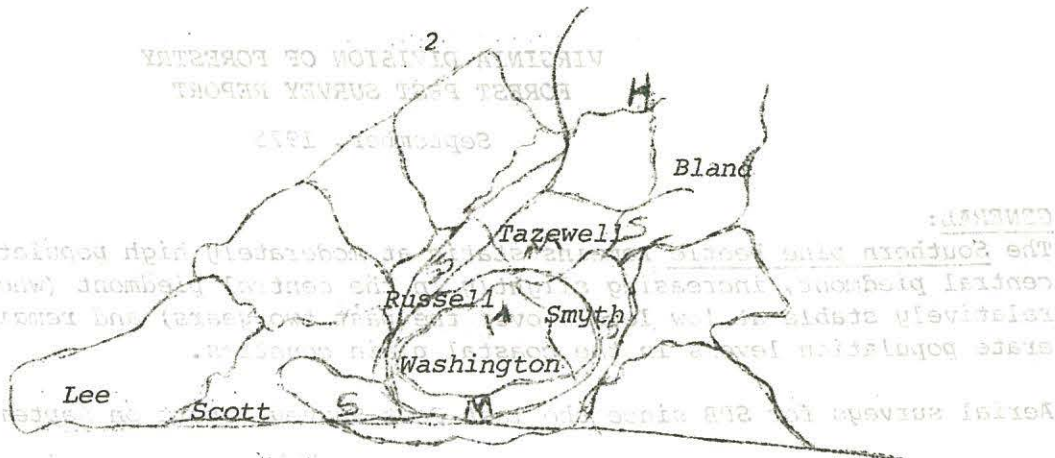
8.7 std. cords.	0.8 A.	7%	54%
5 MBF			

Comparable data for Pittsylvania County (Air survey July 23) showed:

28 std. cords	1.4 A.	6%	84%
6.2 MBF			

The oak sawfly (identified by USDA as Caliroa quercuscoccineae in some parts of West Virginia and Caliroa species in others) has expanded its activity considerably in SW Virginia since August. The attached map reflects the results of aerial surveys on September 9, 15 and 25, 1975 by Severt and District personnel. Gross acreage involved (scattered, moderate and heavy defoliation) is 1500 square miles or roughly 1 million acres. Forester Harold Hannah reports feeding currently evident on Chestnut and white oak in areas where red oak foliage exhausted.

H- Heavy
M- Moderate
S- Scattered



Gypsy Moth: The final report on the results of male moth trapping in Virginia during the Summer of 1975 (from USDA):

County	# Traps with Catches	County	# Traps with Catches
Frederick	2	Clarke	2
Loudoun	5	Fairfax	3

NOTE: W. Va. reports 12 catches in Counties immediately adjacent to the first three Va. Cos. listed above.

Fauquier	1	Lancaster	1
Middlesex	1	Mathews	5
York	1	Isle of Wight	1
Virginia Beach	1	Suffolk	2
Rockingham	1	Greensville	1
Brunswick	1	Smyth	1
Accomac	4	Northampton	2

Copony and Tigner continue their evaluation of areas of seed orchard insect control:

1. An evaluation of the systemic insecticide, Furadan, applied at different rates and times of year to prevent insect-caused seed losses.
2. A seedbug exclusion-caging study to compare seed yields from protected and unprotected cones.
3. An investigation of seedbug biology and behavior.
4. A caging study to evaluate the efficacy of Furadan when applied at 3 different times to prevent damage by the seedbug.

Reports from Forested Districts

Coastal Plain: Southern pine beetle has been reported from Chincoteague on 75 loblolly pine trees; 12 trees in Middlesex; 2 locations in Accomack on 1 & 3 loblolly. Brunswick County reports 5 instances of Turpentine Beetle: 2 spots - 3 trees; 2 spots - 6 trees; 1 spot - 10 trees. One, two and four trees in King William County have been attacked by turpentine beetle. Ips beetle observed in pine stand 30-40 trees in Richmond County; 3 loblolly in Accomack Co.; 5- 25-year-old loblolly in Gloucester; 5 trees in Westmoreland. District 8 reports worst infestation of Bagworm ever experienced on cedar, white pine, Arborvitae and Juniper; 3 red cedars in Gloucester, 3 Virginia pine in Greensville and one cedar & one walnut in Accomack also reported infested. Worst infestation of fall webworm in City of Suffolk on Pecan. Richmond County reports "lighter than normal" activity of fall webworm in Warsaw. Pine tip moth reported in Isle of Wight on 20 loblolly, in Suffolk in 22 acres on natural seedlings; 20 loblolly in Charles City; scattered in County of Mathews and severe on young white pine. Red-headed pine sawfly on 6 Jack pine in Accomack, 2 locations in Gloucester - 5 & 10 loblolly trees; 1 tree in Hanover; 10 loblolly in Mathews. Yellow-striped oakworm on one red oak in Hanover Co.; one red oak yard tree in Gloucester. Dantana contracta observed on 2 trees in Richmond Co. (moderately heavy); Datana ministra on 1 yard tree (red oak) in Gloucester; Datana sp. in Isle of Wight on 20-acre tract on Black Gum.

Needle cast reported in two locations in Chesapeake; on 7 loblolly yard trees in Greenville.

Total rainfall for September: 10.69"

Piedmont: Southern pine beetle reported in 3 Virginia pines in Farmville; 1/10 acre in Prince Edward County; 4 trees in Patrick Co.; 2 Virginia pines in Martinsville, 1 tree heavily attacked in over-mature shortleaf stand in Henry Co. Albemarle County reports SPB on Virginia and shortleaf in 1 acre - 2 locations; 3 acres; 2, 3, 7 and 10 trees. Turpentine Beetle noted in Fluvanna on shortleaf pine - 1 tree; Albemarle - 12 shortleaf; Halifax - 2 locations - 1 & 2 trees. Ips beetle reported in Bedford County on 2 & 6 trees on Virginia pine and on 3 Virginia pines in Amelia. Aphids reported in 2 areas of Halifax County on 2 trees one location, no damage at other location. Albemarle reports 6 white pine near Free Union attacked by aphids; Mecklenburg reports 5-6 white pine seedlings with aphids. Pine tip moth on loblolly in Fauquier County (3 small trees). Pine sawfly on yard trees in Halifax. Southern pine sawyers reported on 1 Virginia pine in Farmville. Elm leaf beetle reported by Halifax County on 1, 2, 4, 5, and 10 trees, 5 locations. Farmville reports 1 tree hit. Halifax County reports orange striped oak worm in two locations on 1 tree; 1 tree in Campbell; scattered in Albemarle; one tree in each Mecklenburg and Henry Counties. Bagworm observed in Campbell Co. and on 3 trees in Pittsylvania.

Powdery mildew on 1 large post oak yard tree in Halifax.

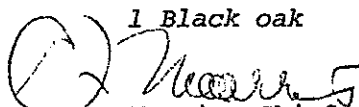
Mountain: Pin Oak Sawfly on red, black, scarlet oaks and Chestnut oak in Bland, Washington, Smyth, Wythe, Russell, Tazewell, Scott Counties. Pulaski reports scattered spots; Augusta - several trees. Southern Pine Beetle on Pitch & Slash pine in Augusta, 5-6 acres; Virginia, slash and pitch pine in Rockbridge from 6 trees to 5 acres. Pine sawflies on white pine in Rockingham - 5 trees; Loblolly - Shenandoah, small spot. Pine Tip Moth on loblolly in Rockbridge, several trees; loblolly in Warren and Shenandoah, 3 spots (large infestations severe attack). Fall webworm in Page, Shenandoah and Warren Counties on numerous trees. Locust leafminer in Rockbridge - numerous. Scales on willow in Shenandoah on 1 small spot. Casebearer on Black Walnut in Warren Co. - 7 acres. Leaf spot on red oak widespread throughout Franklin County.

Rainfall: Salem 6.61; Pulaski - 4.57", Staunton - 9.18".

Miscellaneous:

Brown oak worm	Gloucester	1 post oak
Tent Caterpillar	Isle of Wight	3 pecan
Twig Girdler	Isle of Wight	3 pecan
Unidentified looper	Richmond	-
Polyphemus moth	Richmond	10 gum
Site factor	Westmoreland	1 willow oak
-	Mecklenburg	1 Shortleaf
Decay	Halifax	1 white oak
Mice damage	Albemarle	White pine
Dieback	Fluvanna	1 white pine
Mice	Bedford	12 loblolly
Pitch canker	Patrick	few Virginia pine
Poplar tentmaker	Albemarle	10 aspens
Acronicta	Albemarle	5-6 redbud
Sapsuckers	Halifax	2 trees
Yellow-necked caterpillar	Mecklenburg	1 Black oak

October 16, 1975


C. L. Morris, Chief

Insect & Disease Investigations

VIRGINIA DIVISION OF FORESTRY
October, 1975
FOREST PEST SURVEY REPORT

GENERAL:

This will be the last "formal" report of the 1975 season, and a note of real appreciation is in order to the VDF field force who have provided the backbone of the reports during the past seven months.

Southern pine beetle populations continue to decline slowly in all areas of past activity except in the mountain areas. (Botetourt, Rockbridge, South Augusta, Scott Counties). Additional survey flights in those counties where activities are still at a moderate level are scheduled to begin again in late December or early January. No additional air surveys were conducted since the last pest report. Herrala, Isle of Wight forester, reports only one new active SPB spot infestation during the past month; remainder of spots ground checked appear inactive or only weakly active.

Oak sawfly: Adults of the oak sawfly (active in late summer over 1 million acres in Southwest Virginia) have been identified as Caliroa guercusoccineae by the USDA. (Same species active in West Virginia).

Delay planned effective 1 Dec '75

A meeting in Richmond with EPA and interested State agencies on pesticide applicator registration last week yielded an interesting fact: Congress is considering a delay in the deadline for registration from October 1976 to October 1977. The main reason for this delay is the inability of EPA to re-register all pesticides as required by law. As yet the list of restricted pesticides has not been finalized, a fact which keeps potential registrants up in the air as to whether they would be required to be registered or not.

Morris attended the first annual workshop on the USDA's Expanded Southern Pine Beetle Research and Applications Program in New Orleans a week ago. He will represent the forest pest people in various states in the south and southeast in an attempt to evaluate, monitor and recommend changes in the 5-year program which began in April 1975. Seven additional members will make up the advisory committee working under the auspices of the SPB Action Council, a group of private individuals originally organized several years ago to push for the expanded program.

(Thysanopyga intractata)

A looper on American holly, reported two years ago as being widespread in the "coastal plain" counties of Westmoreland and Northumberland, is again reported as active in those two counties in September. *(also reported by VPI in Spotsylvania Co as larvae on Oct 1, 1975)*
14 Dec 75, Allen reports defoliation "50-75% of hundreds of acres of Am. Holly, Northumberland"
In spite of unusually high populations of Nantucket pine tip moth across the state this summer, loblolly pine seedlings raised at the New Kent Forestry Center (New Kent County) were only lightly infested (2%). No protective spray applied this year, and Varsol for weed control discontinued early, hence not a factor in control. Tip moth was extremely severe in the shortleaf pine seed orchard trees at N~~K~~FC, and is expected to cause loss of a goodly proportion of next year's conelets. *Dec 12*

REPORT FROM FOREST DISTRICTS

Coastal Plain: Southern pine beetle in six loblolly and Virginia pine, also 1 acre in Gloucester. Isle of Wight reports 2 and 10 loblolly pine attacked. Southampton reports 5 loblolly pine attacked. Richmond County reports Turpentine beetle on 3 pine trees. Also reported on four loblolly in Chesterfield. Turpentine and Ips reported by Gloucester on 10 trees; Ips also reported in 5 yard trees. Holly looper reported as widespread by Montross area and Richmond County; Northumberland reports 10-60% range of defoliation in 10 acres. Twig girdler reported in Isle of Wight on 3 pecan trees. Tip moth on 3 acres on loblolly pine near Tucker Hill. Oaks shedding prematurely. Red-humped oakworm found in Gloucester-1 oak yard tree. Datana major found on azalea. Birch sawfly found on one birch in Sussex. Borers observed in 5 red oaks in Chesterfield. Wood borers found in dead tree (lightning kill). D-2 reports 3.42" rainfall.

Piedmont: Southern Pine Beetle found on Virginia pine in 3 locations; 1/8 - 1/4 acre in size in Bedford County. Prince Edward County reports beetles in 3 locations; 1 spot 2 acres, 2 spots 3 acres each on shortleaf and Virginia pine. Four Virginia pine reported in Albemarle County as having been attacked. Turpentine beetle attacked shortleaf pine in 3 locations in Halifax: 1 tree- 2 locations, 5 trees - 1 location. Ips attacked few Virginia pine in Bedford County. Webworm reported in Halifax on 1 and 4 loblolly pine. Red-headed pine sawfly on Scotch pine in Albemarle County; on loblolly in Pittsylvania. Aphid reported on 2 Virginia pine in Lynchburg. White pine sawfly reported having attacked three trees in Rustburg. Hickory twig girdler reported on one pecan in Halifax. Fall cankerworm in mixed hardwoods in Bedford County.

Pitch canker on one smoke tree in Prince Edward. Needlecast reported in Prince Edward and Halifax on loblolly. Resinosis on white pine in Lynchburg. Butt rot in South Boston on chestnut oak

Rainfall for Salem - 2.97".

Mountain: Southern pine beetle reported in one spot on Virginia pine (5 trees) in Rockingham. Pine tip moth on loblolly in Rockingham - 1 spot - 8 acres. White pine weevil on two trees in Augusta. Pine weevil on red pine in Highland County, one tree.

Rainfall - Staunton - 3.59".

November 14, 1975

C. L. Morris, Chief
Insect & Disease Investigations