Vol. 4 October 20, 1981 No. 10

COOPERATIVE PLANT PEST REPORT FOR CALIFORNIA

HIGHLIGHTS

INSECTS

GYPSY MOTH (Lymantria dispar) -- (A) - Only nine collections in the past thirty days as recorded in details below arranged by Counties (in parentheses the name of the state if the origin of specimen was positively traced):

ORANGE - Five collections. Live and dead egg-masses, larva and pupa found on September 11, by J. Coldt in Villa Park on wooden table and benches. - The following finds are all dead specimens: Laguna Hills, September 23, by M. Bennett, two collections of an egg-mass and larva (both from Connecticut); Dana Point, September 23, egg-mass, larva and pupa in log cabin (Pennsylvania); Anaheim, September 18, by R. Wyatt, egg-mass, larva and pupa on chaise lounge (New Jersey).

SAN DIEGO - Two collections, both dead specimens. San Diego, September 18, by "Cal Stead?", egg-mass, larva pupa, both on outside wooden furniture (New York and Massachussetts).

VENTURA - One collection. Santa Paula, dead pupa found by G. Hackworth on September 21.

SANTA CLARA - One collection. Live egg-mass found in Morgan Hill on September 26, by Al Awbrey on a picnic bench. Egg fluid-filled, turgid, indicating viability, as noted by Dr. Eichlin while identifying the specimen.
(All dets. by T.D. Eichlin and R. Somerby).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) -- (A) - Huntinton Beach, September 18, a dead adult specimen found in an empty flower pot by D. Park (recently, Pennsylvania), (det. by A.R. Hardy).

MEXICAN FRUIT FLY (Anastrepha ludens) -- (A) - Three collections, all in San Diego County: National City, September 25, in McPhail Trap (on lemon) found by B.J. Caliri. No dye present, no egg present, ovaries decomposed. Probably from sterile release (det. by M. Wasbauer); San Diego, September 22, found by B. Moss in Jackson Trap (on Fig). Blue dye present in head. Ovaries show evidence of irradiation (det. by M. Wasbauer); San Ysidro, September 25, found in Jackson Trap (on orange) by B. Moss. Small amount of blue dye on body. Testes appear irradiated (det. by K. Corwin).

STATE OF CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Address communications to the Editor: *Dr. Charles S. Papp, Systematic Entomologist, Lab. Services — 340, 1220 N. Street, Sacramento, CA 95814 — (916) 445-4521*

AN ANT (Paratrechina fulva) -- (Q) - Three collections. - San Diego County: Valley Center. On September 24, S. Desserich collected eggs and adults on the rootlets of Schefflera arboricola (Florida). -Los Angeles County: La Puente, September 21, Papilli and Olson collected adult specimens on Ficus benjamina (Georgia); Comptom, September 16, where Mr. Traxles found adult specimen on the roots of Chrysalidocarpus lutescens (Florida), (all dets. by M. Wasbauer).

A SOIL MEALYBUG (Geococcus coffeae) -- (Q) - On September 14, live adult specimens found by Mr. Kellam on Chamaedorea elegans (Hawaii), (det. by R. Gill).

WOOLLY WHITEFLY (Aleurothrixus floccosus) -- (A) - Adult specimens found in Jackson Trap (in orange) by K. Floren on September 25, in El Segundo, L.A. County (det. by R. Gill).

FLORIDA WAX SCALE (Ceroplastes floridensis) -- (Q) - Live adult specimens found by J. Gouvaia in Hayward on September 22. The reported host was Chrysalidocarpus lutescens in a commercial nursery (Florida), (det. by R. Gill).

WEEDS

HALOGETON (Halogeton glomeratus) -- (A) - Four plants found on an Illinois truck entering from Nevada on September 21, by A. Valenzuela (of Benton Station, not of Dodgers'), en route to Modesto (det. conf. by D. Barbe).

SPINELESS RUSSIAN THISTLE (Salsola collina) -- (Q) - On the roadside edge of I-80 near Baxter on September 11, K. Stark found spillage from an out-of-state truck mainly oasts. Lab examination found an average of five seeds of this Q-rated weed per pound (det. by B. Hass).

NEW PUBLICATION

REARING AND RELEASE OF COCCINELLIDS FOR POTENTIAL CONTROL OF PEAR PSYILLA. U.S.D.A., Agricultural Research Services, Advances in Agricultural Technology, AAT-W-20, September 1981, 9 pages, by R.E. Fye (Yakima Agriculture Research Laboratory, ARS, U.S.D.A., Yakima, WA 98902). Introduction of a new predator into a geographic area serves to either supply a predator for prey that has previously escaped predation or introduces an additional predacious species foreign to the native prey. We report here the results on the development of rearing methods to increase numbers of exotic (foreign) coccinellids for release against the pear psylla, Psylla pyricola, the major insect attacking pears in the Pacific Northwest. Eight species of exotic lady beetles, including Leis conformis, L. axyridis, L. dimidiata, Coccinella septempunctata, Calvia quatuordecimguttata, Menochilus quadriplagiatus, Synharmonia conglobata, and Propylaea quatuordecimpunctata, have been reared on greenbugs, Schizaphis graminum, or pea aphid, Acyrthosiphon pisum. Major releases of Leis spp., C. Septempunctata, and M. quadriplagiatus have been made in attempts to supplement pear psylla predation by the native Anthocoris spp. and Deraeocoris spp. The native predators are active in early to midsummer but do not have a major impact on populations of the pear psylla during the spring and fall. The coccinellids could be active during these periods.

BORDER STATION INTERCEPTIONS

INSECTS

ALTURAS:
APPLE MAGGOT (Rhagoletis pomonella) -- (A) - Six maggots found in apple on September 12, by J. Kirby, carried by an automobile of Oregon registry, destined to Susanville (det. M. Wasbauer).

BENTON:
APPLE MAGGOT (Rhagoletis pomonella) -- (A) - Two interceptions, both on September 20, by W.H. Huddleston. Hosts: apples, en route from New Jersey to San Francisco, and from Pennsylvania to Fresno (det. by K. Corwin).

MT. SHASTA:
APPLE MAGGOT (Rhagoletis pomonella) -- (A) - Eleven interceptions, all in apples. September 26, J. Ensey found larvae in an automobile en route from Oregon to Live Oak; on the 30th P. Medford spotted the same of Oregon origin, destined to San Jose (det. by K. Corwin). - September 9, maggots found by W.O. Nelson in a California automobile returning from North Kakota to Long Beach; on the 12th C. Kimball observed the same from Oregon to Fresno; on the same day D.L. Armstrong intercepted specimens in an automobile of California registry heading to Los Angeles; on the 14th, W. Leslie spotted infested apples in an Oregon automobile heading toward Salinas; on September 15 a S. Dakota passanger car en route to Barstow produced additional specimens, while on the same day D. Armstrong confiscated infested apples while inspecting a bus from Michigan on the way to San Francisco. On the 16th search on another bus from Oregon en route to Modesto resulted in additional maggots, while on the 17th again, W. Leslie inspected a bus of Canadian registry and found specimens in crab apple, destined to Fresno (det. by M. Wasbauer).

REDWOOD HWY.:
EUROPEAN CORN BORER (Ostrinia nubilalis) -- (A) - Larval specimens of the pest found by P.D. Wilson on September 17, in sweet corn carried from Connecticut, destined to Modesto (det. by T. Eichlin).

APPLE MAGGOT (Rhagoletis pomonella) -- (A) - An automobile of Florida registry carrying apples purchased in Minnesota, on September 6, produced maggots of this pest (coll. D. Trout). Apples would end up in San Francisco (det. by M. Wasbauer).

SMITH RIVER:
GYPSY MOTH (Lymantria dispar) -- (A) - Egg-mass and pupae (presumably dead at time of collecting) found on September 20 by R. Orloff on a trailer of New Jersey registry on the way to San Francisco (det. by T. Eichlin).

HOLLY LEAF-MINER (Phytomyza ilicis) -- (A) - September 19, S.P. Kelly spotted plants in an automobile of Indiana registry, which proved to be picked up in Washington state. Damage not consistent with typical damage symptoms of HLM, but typical oviposition punctures are present (det. by K. Corwin).

APPLE MAGGOT (Rhagoletis pomonella) -- (A) - Twenty-six larvae found in apples from West Virginia by J. Blakely on September 10, in an automobile of Maryland registry, destined to San Francisco; on the 21st, C. Wilson spotted 5 larvae again in apples of Kentucky origin in a Virginia automobile (det. by M. Wasbauer). - September 21, R. Orloff spotted infested Iowa apples in an automobile from Iowa, en route to San Francisco (det. by K. Corwin).

TRUCKEE:

WALNUT HUSK MAGGOT (Rhagoletis suavis) -- (A) - On September 20, R. Dannelly found infested black walnuts with husks still present from Iowa, destined to San Louis Obispo (det. by K. Corwin).

APPLE MAGGOT (Rhagoletis pomonella) -- (A) - Five collections, with origins of five different states. September 20 in automobile from Nebraska en route to San Francisco (by E. Wilson), on the 24th with Ohio origin (by A. Fabre), both en route to San Francisco, on the 19th infested apples from Wisconsin (by R. Sigler) on the way to Sacramento, and on the 27th in an automobile of Missouri registry with apples from same state (by R. Donnelly) bound to Red Bluff (dets. by K. Corwin). Two other automobiles, one from North Dakota, the other from Ontario, Canada on the 15th and 16th contributed several larvae (by R. Stacy) in out-of-state apples (det. by M. Wasbauer).

TULELAKE:

APPLE MAGGOT (Rhagoletis pomonella) -- (A) - September 14, maggots found by Anderson in Oregon apples en route to Doyle; the same of the 20th destined to Tahoe (det. by M. Wasbauer). - On the 28th a Nevada automobile inspected by Anderson produced infested apples from Oregon (det. by K. Corwin).

YERMO:

EUROPEAN CORN BORER (Ostrinia nubilalis) -- (A) - Three collections. October 1, corn on the cob were intercepted (by -?-) in an automobile traveling from Iowa to Los Angeles (det. by R. Somerby); a California automobile returning from Iowa (host not reported) added to the list, destined to Big Bear; on October 8, J. Ramirez intercepted in an automobile returning from Iowa, several ear corn with several live larvae, destined to Los Angeles (det. by T. Eichlin).

EASTERN TENT CATERPILLAR (Malacosoma americanum) -- (Q) - Live eggs found on a van from New Hampshire by E. Morris, en route to Kings Canyon. A Malacosoma sp. added to the collection on September 14, by M. Lozano, when she found live eggs, larvae and pupae on a trailer returning to California from New York to Camarillo (det. by T. Eichlin).

WALNUT HUSK MAGGOT (Rhagoletis suavis) -- (A) - Several larvae found on September 16 by J. Street in walnuts in husk in an automobile from Missouri destined to Riverside (det. K. Corwin).

APPLE MAGGOT (Rhagoletis pomonella) -- (A) - Seven interceptions, all in apples. September 15, M. Lozano located infested apples from Illinois destined to Placentia; on the 17th, J. Rachuy intercepted the same from Minnesota heading to Los Angeles; on the 18th, J. Street located the same in an automobile returning from Iowa to San Diego (all det. by K. Corwin). - Between September 9-10 three interceptions. From Nebraska by D. Cameron, destined to Fresno; from Minnesota by D. Cameron, en route to Lompoc, and one from Oklahoma by L. Shoquist on the way to Ventura (all det. by M. Wasbauer).

VERTEBRATES

GERBILS - Two specimens on October 5 at YERMO in a California automobile; Two females from Nevada on October 1 at BENTON in an automobile of Nevada registry; one specimen from Missouri on October 3 at TRUCKEE.

FERRET - One specimen found in an automobile from Utah on October 2 at YERMO.

CHIPMUNK - Two specimen in an Oregon automobile were intercepted on October 5 at MT. SHASTA.

QUAKER PARAKEET - One specimen located in an automobile of Washington registry on October 3 at MT. SHASTA.

WEEDS

MT. SHASTA:

DIFFUSE KNAPWEED (Centaurea diffusa) -- (A) - Found by M. Pasteil in a floral arrangement in an automobile on September 30 returning from Washington to Lake Tahoe (det. by J. Chesi).

SPOTTED KNAPWEED (Centaurea maculosa) -- (A) - Again, in a floral arrangement found by H. Loving on October 4 in an Iowa automobile; plants of Oregon origin (det. by D. Barbe).

TRUCKEE:

SPINELESS RUSSIAN THISTLE (Salsola collina) -- (Q) - found in wheat of Utah origin on September 16 (det. by J. Chesi).

YERMO:

HALOGETON (Halogeton glomeratus) --(A) - On October 5, M. Lozano found seeds of Wyoming origin in an automobile of Illinois registry (det. by D. Barbe).

MUSK THISTLE (Carduus nutans) -- (A) - October 5, W. Whitmore while inspecting an automobile from North Carolina - destined for an extended tour in California - found specimens of this weed, which - according to the driver - came from New Mexico or Arizona. However, in the lab it was found that mature achenes are present in flower heads (det. by D.Barbe).

NEW BOOK ON COTTON

WHITE GOLD COMES TO CALIFORNIA - By John Turner - Published by the California Planting Cotton Distributors, P.O. Box 1281, Bakersfield, CA. 93302 (252 pages, illustrated, ISBN # 0-914330-45-2. Price $25.00. -- With this book, the California Planting Cotton Seed Distributors has brought forth the first comprehensive history of the fiber that changed a valley--and a way of life. -- Its all here: marketing programs, irrigation breakthroughs, pest infestations, research endeavors, industry cooperatives, yield increases, government assistance--and regulation. So are the people who made it happen--W.B. Camp, Russell Griffen, Kenneth Frick, Russell Kennedy, Marvin Hillman, and Harry Baker, to name a few--believers all in the soundness of cotton as a cash crop. -- John Turner's format, which traces cotton culture through six phases of development, is as entertaining and wry as his prose. While zeroing in on the "unique set of circumstances and unusual partnerships" that abetted cotton culture, Turner also has a feel for the romance inherent in literally

making the desert bloom with cotton bolls. -- White Gold Comes to California is lavishly illustrated, a handsome volume worthy of the commodity it chronicles--a commodity that returned more during a recent two-year period than all the metal mined in Mother Lode streams since John Marshall's discovery. -- Here, then, is the story of California cotton: the gold that grows.

IF YOU ARE INTERESTED

There are two important meetings planned related to agriculture:

1. Computor - Agriculture SEMINAR & EXHIBITION to be held in Sacramento, January 26 and 27, 1982 at the Red Lyon Motor Inn. *If you are interested and would like to attend this* seminar, please contact Don Wonacott, W.A.C.A., 6650 Bellau Wood Lane, Suite 111, Sacramento, CA. 95822. Phone: (916) 393-4050.

2. ANNUAL MEETING of the Association of Applied Insect Ecologists (A.A.I.A.) will be held on February 1 and 2, 1982 in the Double Tree Inn, Monterey, California. The main topic of the meeting: IPM Beyond Just Insect Control. For further information contact: MaClay Burt, 10202 Cowan Heights Drive, Santa Ana, CA. 92705. Phone: (714) 838-1550.

PHOTOGRAPHS NEEDED

The Estimated Crop Loss Report for 1979 and 1980 is now in preparation. Since this report is now just about overdue, I would like to give something extra for the readers: photographs. Therefore, I would like to ask your help once more. If you have any photographs of any crops of your county, which could be used, I would like to ask you to loan them to me. They can be general views of fields, close-ups on certain crops, or damage of crops. Black and whites, color prints or color slides can be used. All photos will be returned, and if published, will be credited to the photographer. I would like to have those about in the middle of November 1981. --C.S.Papp

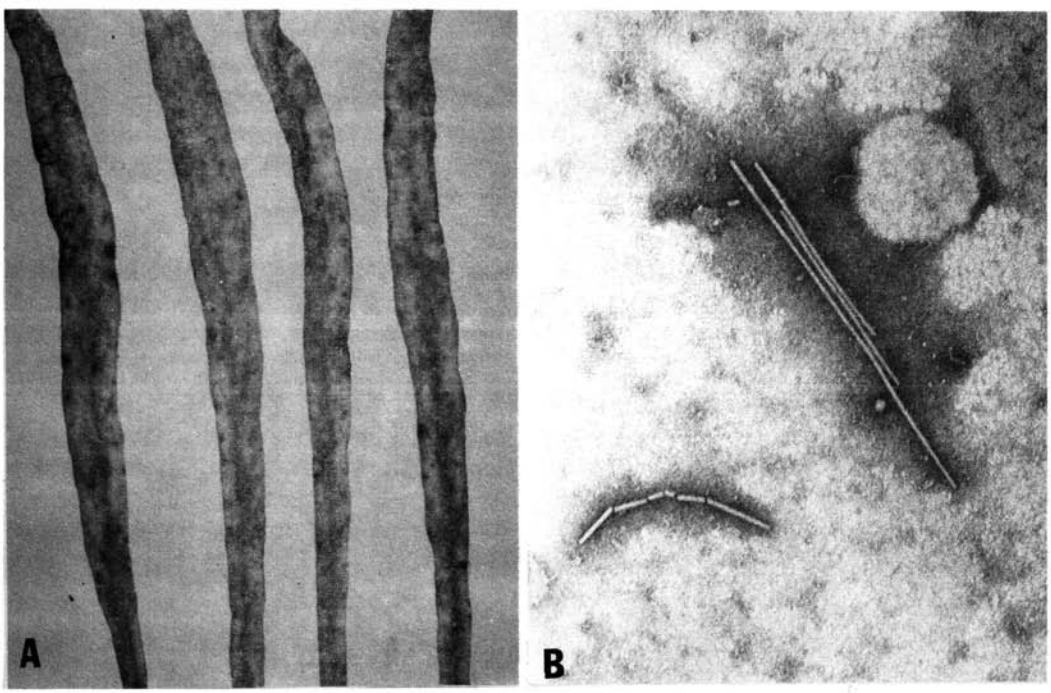
OCCURENCE OF A PREVIOUSLY UNREPORTED VIRUS IN GAZANIA

M. Rose Wilkerson

A sample of Gazania from Placer County was submitted to the Plant Pathology Laboratory in Sacramento for suspected chemical injury. Electron microscopy revealed the presence of long flexuous virus particles. Based on particle size, there is a possibility that more than one virus may be involved.

Symptoms associated with the presence of the virus include stunting and yellowing of the plant. In addition, small chlorotic spots may be present on the leaves. The affected plants also exhibit a smooth leaf surface in contrast to the normal hairy leaf surface. Symptoms become less obvious with cooler temperatures.

There are many viruses which infect members of the Compositae family, however to our knowledge this is the first report of a virus in Gazania. Virus infected Gazania plants have been found in Placer and Sacramento counties. Further study is underway to determine the identity of the virus or viruses.

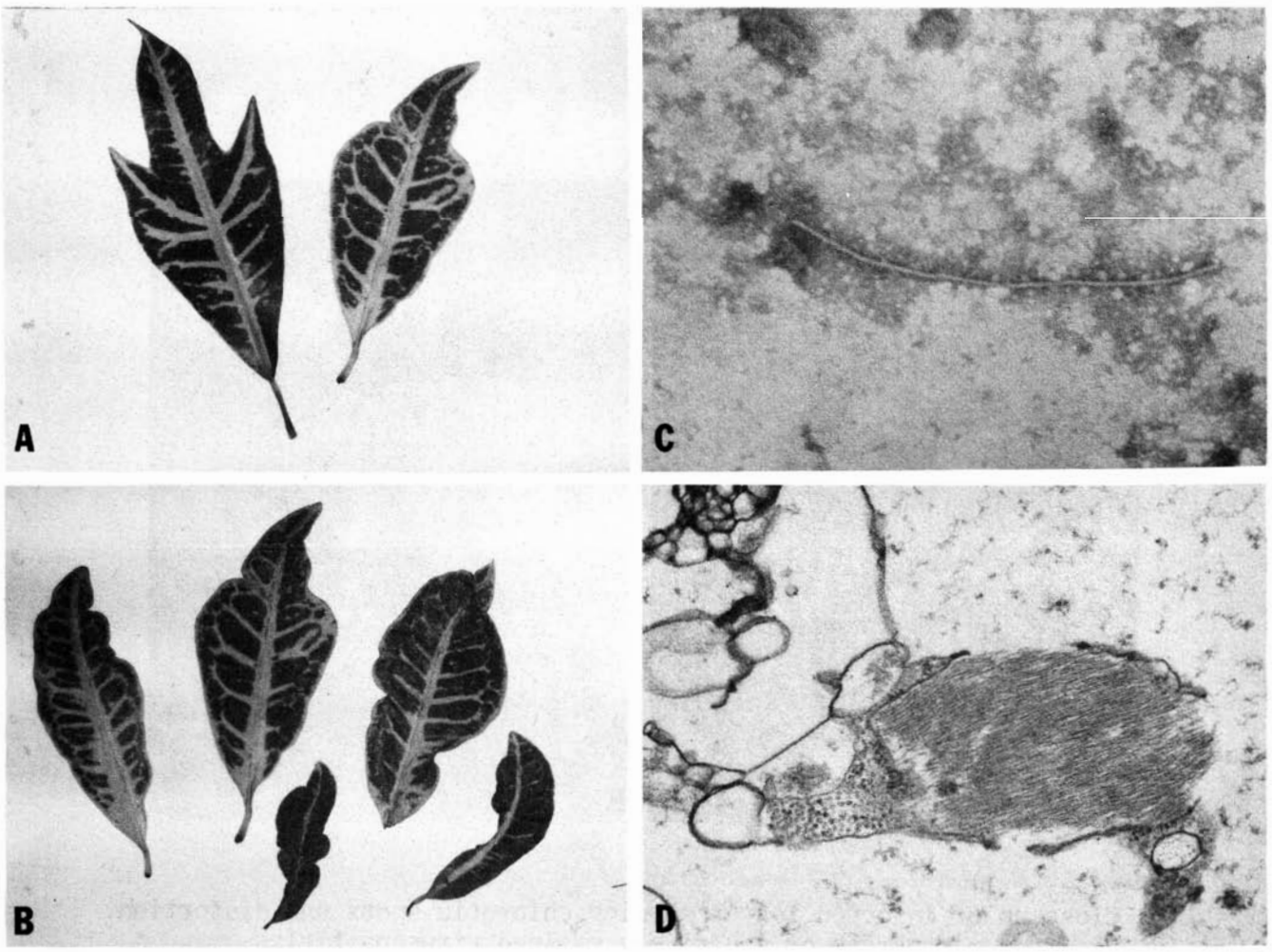


(A) Close-up of infected leaves showing chlorotic spots and distortion.
(B) Electron micrograph of negatively stained virus particles.

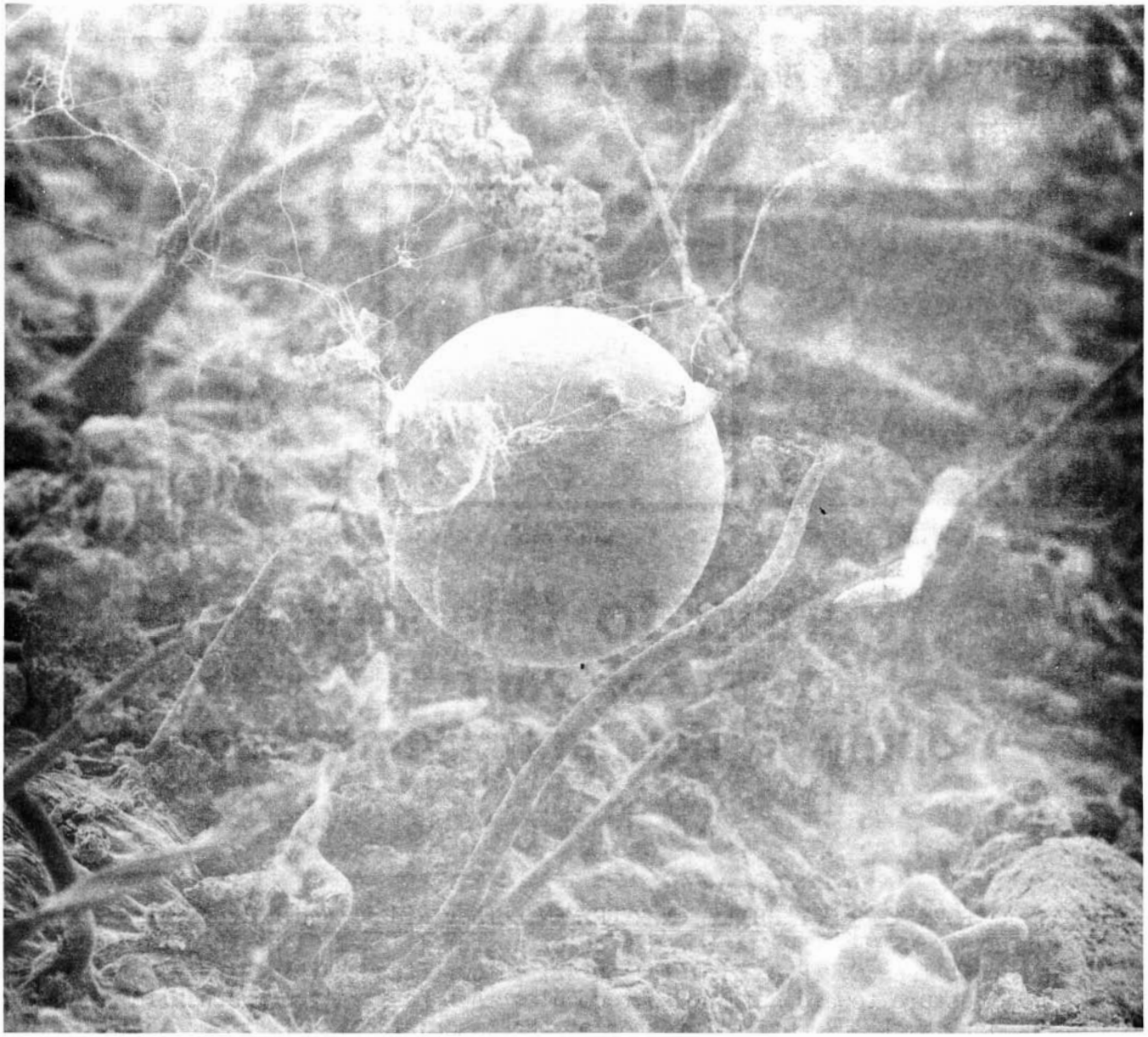
VIRUS INFECTED CROTON

Dennis E. Mayhew and M. Rose Wilkerson

Croton (*Codiaeum variegatum*) plants recently shipped to Santa Cruz from Puerto Rico and Holland, expressed symptoms suggesting the presence of a plant virus. Symptoms included small, malformed leaves with increased mottling, which was not easily distinguished from normal variegation (Figure A,B). Infected plants were also somewhat stunted. Long, flexuous, rod-shaped particles were found in negatively stained preparations prepared for electron microscopy (Figure C). Thin sections of infected leaves revealed the presence of large aggregates of virus particles (Figure D). No other inclusion bodies were found. The identity of the virus has not yet been determined.

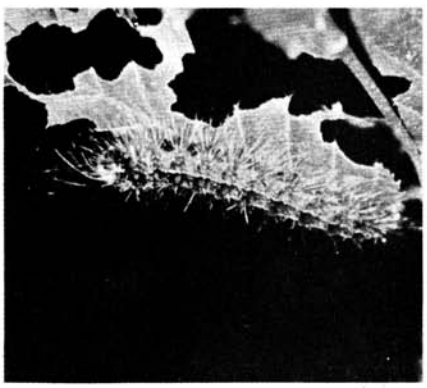


(A,B) Leaves of infected croton, healthy leaf on left in A. (C) Virus particle in negatively stained leaf dip preparation. (D) Virus aggregate in infected leaf parenchyma cell.

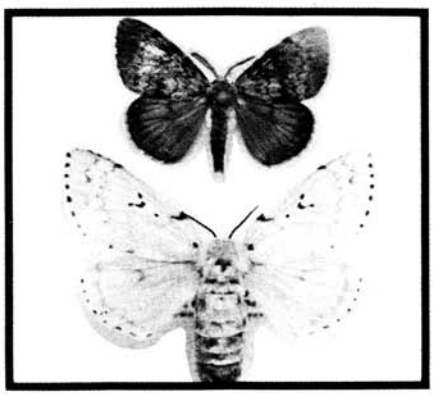


Appearing like a tiny moon floating over the surface of a gigantic planet, a spider mite egg hangs suspended by delicate gossamer-like silken belts stretched between leaf hairs. (S.E.M. photo by T.D. Eichlin; X440).

IF FOUND...



GYPSY MOTH
CATERPILLAR



GYPSY MOTH
MALE & FEMALE

GYPSY MOTH
EGG MASS

...bring to this nursery
or your
County Agricultural Commissioner

CALIFORNIA ASSOCIATION OF NURSERYMEN - They did it again, this time with the GYPSY MOTH. They produced a color poster (11"x 17") of this threatening pest (see C.P.P.R. 1981 (5):39-42) in our State. This highly commendable gesture toward helping to recognize this pest is the brainchild of Mr. Jack Wick, Executive Director, of the Association. If you would like to obtain a copy for displaying this colorful poster in your office (or business) please contact Jack: 1419 21st Street, Sacramento, CA. 95814. Phone: (916) 448-2881. -Again: Congratulation!

CALIFORNIA BLACK LIGHT TRAP REPORT

For the week ending 10-9-81 & 10-16-81

DATE	10-4	10-5	10-12	10-13	
LOCATION	Bellota	Manteca	Bellota	Manteca	
TEMPERATURE		75-46		69-43	
ALFALFA LOOPER *Autographa californica*					
ARMYWORM *Pseudaletia unipuncta*	64	15	31	38	
BEET ARMYWORM *Spodoptera exigua*	15	74	3	27	
BLACK CUTWORM *Argrotis ipsilon*	3	2	1		
CABBAGE LOOPER *Trichoplusia ni*		1			
CLOVER CUTWORM *Scotogramma trifolii*	2				
CODLING MOTH *Laspeyresia pomonella*					
CORN EARWORM, (ETC.) *Heliothis zea*		2			
FALSE CELERY LEAFTIER *Udea profundalis*	2	5		4	
GRANULATE CUTWORM *Feltia subterranea*	18	17	1	19	
SALTMARSH CATERPILLAR *Estigmene acrea*					
SPOTTED CUTWORM *Amathes c-nigrum*		2	1		
SUGARBEET WEBWORM *Loxostege sticticalis*					
TOBACCO BUDWORM *Heliothis virescens*					
W. YELLOWSTRIPED ARMYWORM *Spodoptera praefica*					
GRAPE LEAF FOLDER Desmia funeralis		1			
NAVEL ORANGE WORM Amyelois transitella		4			
PEACH TWIG BORER Anarsia lineatella		6		21	

61-033 (Est. 5-77)