DOWNLOAD PDF MEDITERRANEAN FRUIT FLY SURVEY

Chapter 1 : CDFA - Plant Health Services

The Mediterranean fruit fly, Ceratitis capitata (Wiedemann), is one of the world's most destructive fruit pests. The species originated in sub-Saharan Africa and is not known to be established in the continental United States.

Western Australia Central American and Caribbean: Hawaii since Mau et al. Reinfestations in the same areas leads some experts to believe the California infestion was never eradicated but was instead reduced to subdetectable levels that periodically resurface Dawson et al. Incidence of the Mediterranean fruit fly, Ceratitis capitata Wiedemann , in Florida, Sutton, Division of Plant Industry. The adults are slightly smaller than a house fly and have picture wings typical of fruit flies. They can be distinguished fairly readily from any of the native fruit flies of the New World. The egg is very slender, curved, 1 mm long, smooth and shiny white. The micropylar region is distinctly tubercular. Eggs of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. Larva are white with a typical fruit fly larval shape, i. The last instar is usually 7 to 9 mm in length, with eight ventral fusiform areas. The anterior buccal carinae are usually nine to 10 in number. The anterior spiracles are usually nearly straight on dorsal edge of tubule row often more straight than illustrated. There are usually nine to 10 tubules, although there may be seven to Larva of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. Head is to the left. Lateral view of a mature larva of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. Head is to the right. Graphic by Division of Plant Industry. Head and buccal carinae of larva of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. Anterior spiracles of larva The cephalo-pharyngeal skeleton has a large convex mouth hook each side, approximately 2X hypostome in length. The hypostomium has prominent, rounded subhypostomium; post-hypostomial plates curved dorsally to the dorsal bridge, fused with sclerotized rays of central area of dorsal wing plate. The parastomium is prominent. The anterior of the dorsal bridge has a prominent sclerotized point. The dorsal wing plate is nearly as long as the pharyngeal plate. The median area is relatively unsclerotized. The pharyngeal plate is elongate, with prominent median hood and anterior sclerotized area. Larval cephalo-pharyngeal skeleton of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. The caudal end has bifurcate or paired dorsal papillules D1 and D2 on small mount of relatively flat plate; intermediate papillules I as a line of fused elevations on a very enlarged subspiracular tubercle, plus a remote I3 at approximately 45 degrees from I ; L1 on the median edge of the caudal end; V1 not prominent; posterior spiracles elongate 4. Caudal end of larva of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. Posterior spriacles left side after Phillips of a larva of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. Anal lobes of larva Larval Diagnosis The primary diagnostic characters for Mediterranean fruit fly larvae involve the anterior spiracles, the buccal carinae, and the prominent subspiracular tubercles of the caudal end. The anterior spiracles have the tubule edge relatively straight dorsally and the tubule number usually is nine to 10, although it can be from seven to The buccal carinae number nine to The caudal end has two prominent subspiracular tubercles, each with a crescent of irregularly fused papillules approximately equivalent to The anal lobe is either bifid or entire. The pharyngeal skeleton is distinctive in overall configuration, particularly the enlarged subhypostomium of the hypostomium posterior to each mouth hook. There is a heavily sclerotized dorsal bridge point at the anterior of the dorsal wing plate. The shape of the interior sclerotizations of the dorsal wing plate and the hood of the pharyngeal plate are also distinctive for the species. The features of the larvae of C. Most previous illustrations of the cephalo-pharyngeal skeleton of the species have not shown the pharyngeal plate hood, and details of the illustrations also vary among themselves see Greene , Phillips The figure of the cephalo-pharyngeal skeleton in Greene appears not to be very accurate. The supposed supernumerary lateral papillules of the caudal end, noted by Phillips , are not usually evident in specimens or at most represent only slight plate elevations on the very lateral edge dorsal to L1. Larvae examined came from verified samples from Florida, Hawaii, and Portugal all are in the larval collection of the Museum of Entomology, Florida State Collection of Arthropods. The pupa is cylindrical, 4 to 4. Pupae of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. An adult Mediterranean fruit fly, Ceratitis capitata Wiedemann , emerging from a puparium. The adult fly is 3. The color is yellowish with brown tinge, especially on abdomen, legs, and some markings on wings. The lower

corners of the face have white setae. Eyes are reddish purple fluoresce green, turning blackish within 24 hours after death. Ocellar bristles are present. The male has a pair of bristles with enlarged spatulate tips next to the inner margins of the eyes. The thorax is creamy white to yellow with a characteristic pattern of black blotches. Light areas have very fine white bristles. Humeral bristles are present. Dorsocentral bristles are anterior of the halfway point between supraalar and acrostichal bristles. The scutellum is inflated and shiny black. The abdomen is oval with fine black bristles scattered on dorsal surface and two narrow transverse light bands on basal half. The thorax of the adult Mediterranean fruit fly, Ceratitis capitata Wiedemann , is creamy white to yellow with characteristic pattern of black blotches. The light areas have very fine white bristles. Wings, usually held in a drooping position on live flies, are broad and hyaline with black, brown, and brownish yellow markings. Ther is a wide brownish yellow band across the middle of the wing. There are dark streaks and spots in middle of wing cells in and anterior to anal cell. Wing of the adult Mediterranean fruit fly, Ceratitis capitata Wiedemann. Wings are usually held in a drooping position on live flies, are broad and hyaline with black, brown, and brownish yellow markings. There is a wide brownish yellow band across middle of wing. The males are easily separated from all other members of this family by the black pointed expansion at the apex of the anterior pair of orbital setae. The females can be separated from most other species by the characteristic yellow wing pattern and the apical half of the scutellum being entirely black White and Elson-Harris Dorsal view of adult male Mediterranean fruit fly, Ceratitis capitata Wiedemann. Lateral view of adult Mediterranean fruit fly, Ceratitis capitata Wiedemann. Life History and Habits Back to Top The length of time required for the medfly to complete its life cycle under typical Florida summer weather conditions, and on which eradication schedules in Florida are based, is 21 to 30 days. A female medfly will lay one to 10 eggs in an egg cavity 1 mm deep, may lay as many as 22 eggs per day, and may lay as many as eggs during her lifetime usually about The number of eggs found at any time in the reproductive organs is no indication of the total number of eggs an individual female is capable of depositing, as new eggs are being formed continually throughout her adult life. Females usually die soon after they cease to oviposit. Life cycle of the Mediterranean fruit fly, Ceratitis capitata Wiedemann , from left to right: Eggs are deposited under the skin of fruit which is just beginning to ripen, often in an area where some break in the skin already has occurred. Several females may use the same deposition hole with 75 or more eggs clustered in one spot. When the eggs hatch, the larvae promptly begin eating, and at first tunnels are formed, but may keep close together in feeding until nearly full grown. Fruit in a hard or semiripe condition is better for oviposition than fully ripened fruit. Ripe fruit is likely to be more juicy, and such fruits often are associated with a high mortality of eggs and young larvae. Females will not oviposit when temperatures drop below Pupae carry the species through unfavorable conditions, such as lack of food, water, and temperature extremes. During warm weather eggs hatch in 1. The duration of the egg stage is considerably increased by lower temperatures. Larvae pass through three instars. The kind and condition of the fruit often influence the length of the larval stage. In citrus fruits, especially limes and lemons, it appears to be longer. Thus larvae require 14 to 26 days to reach maturity in a ripe lemon, as compared with 10 to 15 days in a green peach. Larvae leave the fruit in largest numbers at or just after daybreak and pupate in the soil or whatever is available. Adults emerge in largest numbers early in the morning during warm weather and emerge more sporadically during cool weather. They can fly short distances, but winds may carry them a mile or more away. Copulation may occur at any time throughout the day. Newly emerged adults are not sexually mature. Males often show sexual activity four days after emergence, and copulation has been observed five days after emergence. Both sexes are sexually active throughout the day. Adults die within four days if they cannot obtain food. Some adults may survive up to six months or more under favorable conditions of food fruit, honeydew, or plant sap , water, and cool temperatures.

Chapter 2 : Ceratitis capitata (Mediterranean fruit fly)

The Mediterranean Fruit Fly Ceratitis capitata (Wiedemann) The Mediterranean fruit fly 'Medfly' is considered one of the world's most destructive pests.

Not for reproduction, distribution or commercial use. Entomology Journal publishes original research papers and reviews from any entomological discipline or from directly allied fields in ecology, behavioral biology, physiology, biochemistry, development, genetics, systematics, morphology, evolution, control of insects, arachnids, and general entomology. Entomology ISSN www. El-Gendy1 and Atef M. The current study was carried out over two successive years; and in thirteen districts of El-Beheira governorate and aimed to conduct a delimit survey and monitor the seasonal activity of PFF and MFF populations. The results showed that the PFF was recorded in almost all of the examined districts except for Edko district. Moreover, the PFF was not found in El-Mahmodiya district throughout the second study period, while the MFF was spread throughout all tested districts at both years. Interâ€"site comparison revealed significant differences in the abundance of PFF and MFF across the tested districts during and seasons. Population growth rate r0 of PFF was higher than that of the MFF through the first interval of population increase through both and seasons; 1. The r0 values of the MFF was higher than the PFF through the second interval of increase through both tested seasons; 1. It could be concluded that these two insects exchange their role as a key-pest of fruit hosts along the tested seasons. Tephritidae are arguably the most destructive insect pests of fruits and vegetables throughout the world. El-Gendy and Atef M. Nassar guava Psidium guajava plants De Meyer et al. Currently, it had become widespread all over Egypt and on many host plants El-Minshawy et al. The PFF and MFF are serious pests of ripped fruits in Egypt, they are polyphagous insects and they almost have the same host plants, particularly peach, guava, mango, and citrus Duyck et al. Specifically, the MFF attacks more than different fruit species Liquido et al. Adults of MFF survive a long time in the field and they disperse rapidly when no mature fruits available in a particular area Fletcher, In Egypt, the PFF is an active insect-pest throughout the year with the exception of cold months, especially January Draz et al. The phenology and population dynamics of fruit flies have been studied extensively in the tropics, but at less extend in temperate areas that lay within the Northern and cold areas of its current geographical distribution Dhillon et al. The study was conducted in thirteen districts of El-Beheira governorate, which has the largest agricultural activity and area in Egypt Map 1 and Table 1. Study locations at El-Beheira governorate. Delimiting survey and seasonal activity of peach fruit fly, Bactrocera zonata and Mediterranean Fig. Total area percent of horticulture crops in the thirteen districts of El-Beheira Governorate during and Distribution of horticulture crops area Feddan at El-Beheira Governorate districts, through the and Each district has an equal number of traps for each fly species within the investigated location, which was distanced approximately â€" m from one location to the next one depending on mainly the number of horticulture crops density in the area Figure 1 and Table 1 and towns fruit markets, and back yard gardens. Each location had three traps replicates for each fly species Table 2. The traps were hung on the tree canopy at 1. Traps were examined weekly and the cotton wicks with the lures were renewed once every month in winter and once every two weeks in the summer Ismail R. Number of locations of Jackson traps, which were placed at each investigated district of El- Beheira Governorate. El-Dalangat weather station covers the area of El- Beheira Governorate. As well as, it was absent from El-Mahmodiya district in With respect to the MFF, it was recorded at all of the tested districts throughout both of the tested seasons; and Delimiting survey and seasonal activity of peach fruit fly, Bactrocera zonata and Mediterranean Table 3: Occurrence of PFF, B. Whereas, the PFF was the major fly at Dalangat district with Nassar Also, in the highest RA The data in Fig. In season, the PFF population was low during the winter to the end of spring and increased from the 20th week with peaks of increase at the 32nd, 38th, 41st, 43rd 46thand 47th weeks. It began to increase early at the first of spring 13th week to peak at 21st, 23rd, 25th and 27th weeks, and then decline to reach the lowest mean density number at the 40th week to peak at 46th, 47th and 49th weeks. Seasonal fluctuation of PFF, B. It was obvious that PFF fluctuated along the year to Delimiting survey and seasonal activity of peach fruit fly, Bactrocera zonata and Mediterranean record peaks at the 22nd, 24th, 26th,

31st, 33rd, 36th, 41st, 43rd, 47th and 50th weeks. On the other hand, the MFF started its activity early in winter with a peak at the 15th week and declined at the 22nd, 26th, 36th, 41st, 44th and 47th weeks. It was clear from Fig. In contrast, r0 values of the MFF was higher than the PFF through the second interval of increase through both tested seasons; 1. Accordingly, the PFF was the key-pest during the periods of occurrence of peach, guava, and mango fruits, while the MFF was the key-pest in the presence of orange fruits. We concluded based on results presented herein that these two insects exchange their role as a key-pest of fruit hosts along the tested seasons. Generally, the average number of MFF increased from year to year was shown in Table 3. Numbers were from 0. In contrast, the numbers of PFF were decreased from 0. The same trend was obtained for population activity of MFF and the abiotic factors but non-significant correlation. In Ismail R. Nassar season, population activity of both PFF and MFF flies and weather factors revealed that the tested abiotic factors were not significantly correlated with the number of fruit flies trapped of both PFF and MFF. Correlation coefficients and adjusted multiple regression among weekly mean numbers trapped of PFF, B. Adjusted multiple regression SE: Max- and min- temperatures affective the PFF density, while the MFF abundance was affected only by the max- temperature for. Hence, it was suggested that the population abundance of PFF and MFF was partially dependant on max- and min- temperatures. Current results revealed that MFF was the dominant fly at Edko region during both of and While, the PFF had been completely absent from this area despite the presence of its preferred host mango and guava. Also, the climate plays an important role more than the host diversity that allow the coexistence of fruit fly species in La Reunion Island Duyck et al. As well as, Hashem et al. The confirmed results extend to the results of Agarwal and Kapoor whom reported that PFF superseded the oriental fruit fly, B. The inter-site comparison results showed significant differences in the annual mean density of both PFF and MFF between the tested districts at both and seasons. As well as, a significant correlation was obtained between population density of both PFF and MFF, and tested locations through only. It seemed that the locations have an important role in the population density of fruit flies. Similar results were obtained by Ghanim in Dakahlia, El-Gendy et al. They recorded a highly significant difference in the PFF incidence between examined areas. So, the present study revealed that the MFF numbers were increased from year to year; 0. In contrast, the results of Saafan et al. Generally, our results showed that both of PFF and MFF males were present with discrepancy in the population densities throughout the study periods. This may be due to the seasonal changing of climate, availability and sequence its host plants. Delrio and Cocco mentioned that population density of the MFF in different fruit-growing areas were affected by host species and variety, crop sanitation practices, climate factors and type of cultivation. Also, El- Ismail R. Generally, the results revealed that PFF numbers decreased in annual mean from 0. These results were in agreement with that of Draz et al. They mentioned that the annual mean of population density of PFF on mango trees was reduced from 0. Also, it was 2. The obtained data revealed that the population activity of PFF through was significantly correlated with the maximum and minimum temperature and relative humidity. Results were supported by the data of Hui and Liu in China, who reported a positive significant correlation between monthly capture rates of B. These results were similar to data reported by Ghanim in Egypt, who found that the mean temperature and relative humidity contributed with It was clear that the tested abiotic factors were more effective on the fly population activity of PFF than MFF through both of the tested seasons; and As well as, they exchanged their roles as a key-pest; the PFF was the key-pest at the period of occurrence of peach, guava, and mango fruits, while the MFF was the key-pest when orange fruits were present. Also, the results revealed that variation in weather impacted the population abundance not only species but also from year to year. Our results indicated that presence of PFF and MFF in certain area was governed by host plant, weather conditions, and many other factors for example, altitude and soil type that should be studied. El-Abbassi for reviewing the manuscript and the staff at the agricultural administration across El-Behiera Governorate for their assistance during the field trials. Population fluctuations and interspecific competition between Tephritid flies attacking fruit crops in the New Valley Oases, Egypt. Archives of Phytopathology and Plant Protection Seasonal variations of melon fly, Bactrocera cucurbitae Coquillett Diptera: Tephritidae in different agricultural habitats of Bangladesh. Journal of Agricultural and Biological Science, 7: Effect of weather parameters on population dynamics of peach fruit fly, Bactrocera

zonata Saunders. New records of some Hymenopterous parasites of fruit flies Diptera: Bulletin of Entomology New Delhi Distribution Maps of Plant Pests. Ecological studies on the important insect pests on apple trees at El-Beheira governorate. Thesis, Faculty of Agriculture, Alexandria University. Invasive fruit fly pests in Africa. Royal Museum for Central Africa. The melon fruit fly, Bactrocera cucurbitae:

Chapter 3 : Department of Agriculture | Plant Pest Survey

Mediterranean Fruit Fly Survey: Hearings Before the Committee on Agriculture, House of Representatives, Seventy-First Congress, Third Session. January 28 and February 5, January 28 and February 5,

It has a blackish thorax marked with silver; a tan abdomen with darker stripes extending across the abdomen; and clear wings with two light brown bands across the wing, another along the distal front edge, and gray flecks scattered near the base. The immature stages are superficially similar to those of other exotic fruit flies Fig. Eggs are white, very small, elongate, and somewhat banana-shaped. Larvae are white, legless, and somewhat carrot-shaped. The pupa is contained inside an elongate oval, shiny brown, hard puparium. Distribution The Mediterranean fruit fly is native to Africa, but has spread to other parts of the world including southern Europe, Australia, and the New World tropics. It has been recorded from the Caribbean on the island of Jamaica and in the Netherlands Antilles. This pest was first trapped in California in Life Cycle Development is temperature dependent. Eggs of the Mediterranean fruit fly are laid below the skin of the host fruit. They hatch within days up to days in cool weather and the larvae feed for another days. The larvae leave the fruit and pupate in the soil under the host plant, and adults emerge after days. Adults can live for up to 2 months. The total time from egg to adult can vary from 5 weeks to 5 months, depending on temperature. The damage caused by larval feeding makes fruit unfit for human consumption. The crops potentially affected in California are many and comprise a significant portion of the total agricultural output for the state. The Mediterranean fruit fly has one of the widest host range of any pest fruit fly, and is considered the most important agricultural pest in the world. It has been recorded infesting over cultivated and wild fruits. The host list includes apple, apricot, avocado, bell pepper, carambola, coffee, dates, fig, grape, grapefruit, guava, lemon, lime, loquat, lychee, mango, nectarine, orange, papaya, peach, pear, persimmon, plum, pomegranate, pummelo, quince, sapote, tangerine, tomato, and walnut. United States Department of Agriculture. National Agricultural Statistics Service. California Field Office, Sacramento.

Chapter 4 : CDFA > PLANT > MEDITERRANEAN FRUIT FLY PEST PROFILE

The Mediterranean Fruit Fly Page 3 May would dramatically diminish many people's quality of life. Detection and Control Measures â€¢ Traps -- Survey tool for detection.

Anal lobes of larva of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. The anterior spiracles have the tubule edge relatively straight dorsally and the tubule number usually is nine to 10, although it can be from seven to The buccal carinae number nine to The caudal end has two prominent subspiracular tubercles, each with a crescent of irregularly fused papillules approximately equivalent to The anal lobe is either bifid or entire. The pharyngeal skeleton is distinctive in overall configuration, particularly the enlarged subhypostomium of the hypostomium posterior to each mouth hook. There is a heavily sclerotized dorsal bridge point at the anterior of the dorsal wing plate. The shape of the interior sclerotizations of the dorsal wing plate and the hood of the pharyngeal plate are also distinctive for the species. Larvae examined came from verified samples from Florida, Hawaii, and Portugal all are in the larval collection of the Museum of Entomology, Florida State Collection of Arthropods. Pupa The pupa is cylindrical, 4 to 4. Pupae of the Mediterranean fruit fly, Ceratitis capitata Wiedemann. An adult Mediterranean fruit fly, Ceratitis capitata Wiedemann , emerging from a puparium. Head is to the left. The color is yellowish with brown tinge, especially on abdomen, legs, and some markings on wings. The lower corners of the face have white setae. Eyes are reddish purple fluoresce green, turning blackish within 24 hours after death. Ocellar bristles are present. The male has a pair of bristles with enlarged spatulate tips next to the inner margins of the eyes. The thorax is creamy white to yellow with a characteristic pattern of black blotches. Light areas have very fine white bristles. Humeral bristles are present. Dorsocentral bristles are anterior of the halfway point between supraalar and acrostichal bristles. The scutellum is inflated and shiny black. The abdomen is oval with fine black bristles scattered on dorsal surface and two narrow transverse light bands on basal half. The thorax of the adult Mediterranean fruit fly, Ceratitis capitata Wiedemann , is creamy white to yellow with characteristic pattern of black blotches. The light areas have very fine white bristles. There is a wide brownish yellow band across the middle of the wing. There are dark streaks and spots in the middle of wing cells in and anterior to the anal cell. Wing of the adult Mediterranean fruit fly, Ceratitis capitata Wiedemann. Wings are usually held in a drooping position on live flies, are broad and hyaline with black, brown, and brownish yellow markings. There is a wide brownish yellow band across middle of wing. The females can be separated from most other species by the characteristic yellow wing pattern and the apical half of the scutellum being entirely black White and Elson-Harris

Chapter 5 : ADW: Ceratitis capitata: INFORMATION

A species profile for Mediterranean Fruit Fly from USDA's National Invasive Species Information Center.

Khapra Beetle Overview To protect the agricultural industries of the state, the New Jersey Department of Agriculture, Division of Plant Industry has adopted the following quarantines which regulate the movement of plant material, and plant or plant-related pests into or within the state. In order to prevent the spread of white pine blister rust Cronartium ribicola, Fisher in the State of New Jersey, the distribution and movement of the plant material is regulated as follows: Five-needled pines Pinus sp. The possession or movement of red currant and gooseberry plants Ribes sp. This pest, therefore, constitutes a serious threat to agriculture in New Jersey. No soil, including sod and sand, shall be moved from any area known to be infested with Golden Nematode into the State of New Jersey, except when fumigated by an approved method and certified as such. Material entering New Jersey in violation of this order shall be confiscated. This scale is not native to New Jersey. The harboring or importation of the Ceriferus or Japanese wax scale is prohibited. Any building, product, or means of conveyance, which in the determination of the Department of Agriculture, presents a risk of the spread of this scale will be subject to the measures of control allowed by New Jersey Statutes. Mediterranean Fruit Fly Ceratitus capitata The New Jersey State Board of Agriculture has determined that the Mediterranean fruit fly Ceratitus capitata is a dangerously injurious insect and constitutes a menace to the fruits and vegetables of the State of New Jersey. The Mediterranean fruit fly is not native to New Jersey. The harboring or importation of the Mediterranean fruit fly is prohibited. Any building, product, or means of conveyance which in the determination of the Department of Agriculture, presents a risk of the spread of the Mediterranean fruit fly will be subject to the measures of control allowed by New Jersey Statutes. Africanized Honey Bee Apis mellifera scutellata The New Jersey State Board of Agriculture has determined that the Africanized honey bee Apis mellifera scutellata is a dangerously injurious insect and constitutes a menace to the practice of apiculture in the State of New Jersey. The Africanized honey bee is not native to New Jersey. The keeping or importation of the Africanized honey bee in any stage of development is prohibited, including: The Khapra Beetle is not native to New Jersey. The harboring or importation of the Khapra Beetle is prohibited. Any building, product, or means of conveyance which in the determination of the Department of Agriculture, presents a risk of the spread of the Khapra Beetle will be subject to the measures of control allowed by New Jersey Statutes. General Requirements on Movement of Nursery Stock.

Chapter 6 : Mediterranean Fruit Fly Detected in Half Moon Bay (County of San Mateo) | Nextdoor

Extensive fruit collections were done between and on the island of Hawaii to determine the infestation biology of Mediterranean fruit fly, Ceratitis capitata (Wiedemann), in different.

Life cycle[edit] Larva of the medfly Adult medflies lay their eggs under the skins of fruit, particularly where the skin is already broken. The eggs hatch within three days, and the larvae develop inside the fruit. Maggots may stay from 5 to 10 days depending on temperature and food availability by fruit size. Once the larvae reach the next development stage, it will dig its way out of the fruit, making a small hole and then falling to the ground where it starts to dig and then pupates centimeters underground. Depending on temperature adult emergence may occur in as short as 7 days. The adults have a limited ability to disperse, but the global fruit trade can transport infected fruit over thousands of miles. Genetics[edit] Sex determination in C. Unusually for a dipteran and for a frugivore, medflies do not have an opsin gene for blue light perception as shown from the whole-genome sequencing project completed in September This updated map provides information on the distribution of the Mediterranean fruit fly, Ceratitis capitata, throughout the world. The information is mainly based on available Mediterranean fruit fly national surveillance reports. Therefore, the map displays assessments of the presence of this pest at the national level and in some cases at sub-national levels. Invasions[edit] In the United States, C. Reintroduced populations of the medfly have been spotted in California as recently as , requiring additional eradication and quarantine efforts. In particular, use of the sterile insect technique has allowed the species to be eradicated from several areas. In , California Governor Jerry Brown , who had established a reputation as a strong environmentalist , was confronted with a serious medfly infestation in the San Francisco Bay Area. Initially, in accordance with his environmental protection stance, he chose to authorize ground-level spraying only. Unfortunately, the infestation spread as the medfly reproductive cycle out-paced the spraying. After more than a month, millions of dollars of crops had been destroyed and billions of dollars more were threatened. Governor Brown then authorized a massive response to the infestation. Fleets of helicopters sprayed malathion at night, and the California National Guard set up highway checkpoints and collected many tons of local fruit. Some people claimed that malathion was toxic to humans, as well as insects. Collins , staged a news conference during which he publicly drank a small glass of malathion. Many people complained that, while the malathion may not have been very toxic to humans, the aerosol spray containing it was corrosive to car paint. During the week of September 9, , adult flies and their larvae were found in Dixon, California. The California Department of Food and Agriculture CDFA and cooperating county and federal agricultural officials started eradication and quarantine efforts in the area. Eradication was declared on August 8, , when no "wild" i. On November 14, , four adult flies were found in El Cajon, California. The San Diego County Agricultural Commission implemented a treatment plan, including distributing millions of sterile male flies, local produce quarantines, and ground spraying with organic pesticides. Retrieved 26 September Thompson July 15,

Chapter 7 : Mediterranean fruit fly - Ceratitis capitata (Wiedemann)

ReFeReNCeS: Anonymous, New Pest Detection and Survey Staff. Mediterranean fruit fly in the U. S. - p. of Coop-erative Economic Insect Report 25(43), map, 13 fig. Plant Protection and Quarantine Programs, Animal and.

Chapter 8 : Mediterranean fruit fly (Medfly), Ceratitis capitata - Pest Tracker - CAPS Services

Mediterranean fruit fly (Medfly) Ceratitis capitata Mediterranean fruit fly (Medfly) (Ceratitis capitata) is an insect pest of fruits and www.nxgvision.com is a native of Africa and was first detected in Hawaii in

Chapter 9 : Ceratitis capitata - Wikipedia

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Mediterranean Sea, Australia, Central America, South America, The Mediterranean fruit fly has been recorded infesting over Detection and Survey Officer.