CAPS Datasheets provide pest-specific information to support planning and completing early detection surveys.

Anthonomus rubi (Herbst, 1795)

Synonym(s):
Curculio rubi Herbst, 1795
Anthonomus obscurus Stephens, 1829
Anthonomus terreus Gyllenhal, 1835

Figure 1. *Anthonomus rubi* adult. Photo A. Balodis (https://commons.m.wikimedia.org/wiki/)

Common Name
Strawberry blossom weevil,
black anthonomus

Type of Pest
Arthropods
Weevil

Taxonomic Position
Class: Insecta, **Order:** Coleoptera,
Family: Curculionidae

Pest Recognition
This section describes characteristics of the organism and symptoms that will help surveyors recognize possible infestations/infections in the field, select survey sites, and collect symptomatic material. For morphological descriptions, see the Identification/Diagnostic resources on the AMPS pest page on the CAPS Resource and Collaboration website.

Pest Description

Adult weevils are small and black with a body length of 2-4mm (Alford, 2014; Popov, 2017) (Fig. 1). Adults are active on hosts in the spring when temperatures reach 50°F (Alford, 2014; Krauß et al., 2014).

Signs

After mating in the spring, adult females lay eggs in the closed green flower buds of host plants. The female then severs the bud, which drops from the plant or hangs partially attached (Aasen and Trandem, 2006) (Fig. 2).


Figure 2. Partially severed *Rubus armeniacus* bud damaged by a female *A. rubi*. Photo by W. Wang (Franklin et al., 2021)

Easily Mistaken Species

Anthonomus rubi is similar to *A. signatus* (Fig. 3), which is found in the United States east of the Rocky Mountains (McPhie and Burrack, 2017; Peck and Thomas, 1998). Adults of these species are visually different. *Anthonomus rubi* is black, while *A. signatus* is brownish-red with a large black spot on each elytra (Jeger et al., 2017). However, an all-black color morph of *A. signatus* has been reported from northern British Colombia, Canada (Franklin et al., 2021) (Fig. 4). The biology and hosts of the two pests are similar (Aasen and Trandem, 2006).

Figure 3. *Anthonomus signatus* adult. Photo by T. Murray (https://bugguide.net)

There are other similar looking *Anthonomus* species, including *A. corvulus*, *A. nigrinus* (Fig. 4), and *A. eugenii* (Franklin et al., 2021); however, these species are found on different hosts than *A. rubi* and *A. signatus*. *Anthonomus eugenii* is a pest of peppers in the southern United States (Franklin et al., 2021).

Biology and Ecology

Anthonomus rubi has a single generation per year (Kovanci et al., 2005; Tonina et al., 2021). In the spring, overwintered, unmated adults emerge when temperatures reach around 50°F (Ioanisiyani and Laurova, 1968; Krauß et al., 2014), which is usually synchronized with the development of its host plants (Jørgensen, 1980). The weevils move from overwintering sites by short flights or walking to nearby host plants (Höhn and Stäubli, 1989). After the weevils feed benignly on leaves and flowers, mating occurs, and females search for hosts with unopened flower buds to lay their eggs (Krauß et al., 2014). Adult females laid an average of 158 eggs in experimental conditions with temperature of 68°F (Easterbrook et al., 2003). Once she has laid her eggs, the female chews through the stem just below the bud, which stops the bud's development until it eventually drops from the plant (Aasen and Trandem, 2006). After hatching, the larvae feed and develop over the next month within the "clipped" bud where pupation also takes place (Aasen and Trandem, 2006). Newly emerged adults exit the bud in late spring or early summer, and feed for a short period, before overwintering (diapause) in leaf litter and plant debris beginning in mid to late summer (Alford, 2014; Höhn and Stäubli, 1989). Newly emerged adults may sever buds without laying eggs (Tonina et al., 2021). In areas where host plants produce fruit

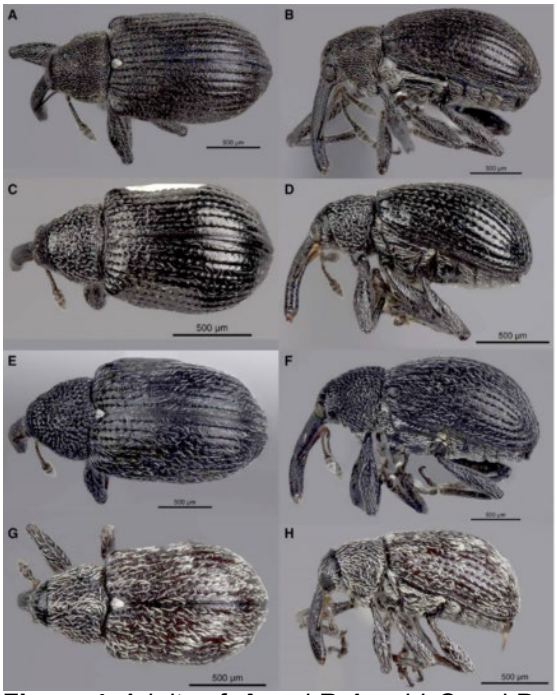

Figure 4. Adults of; **A** and **B** *A. rubi*, **C** and **D** *A. corvulus*, **E** and **F** *A. nigrinus*, **G** and **H** *A. signatus* "all black morph". Photos by A. Smith (Franklin et al., 2021)

for longer periods (ever-bearing), adults may be active until early autumn (Cross and Easterbrook, 1998; Tonina et al., 2021).

Known Hosts

Anthonomus rubi feeds and reproduces on a wide range of cultivated and wild plants (Popov, 2017). It is highly attracted to strawberries and raspberries (Krauß et al., 2014), roses (Jørgensen, 1980; Tonina et al., 2021) and blackberries (Höhn and Stäubli, 1989; Tonina et al., 2021). The environmental impact of these infestations is not described in the literature, but wild hosts could act as a refuge for the population.

The host list below includes cultivated and wild plants that 1) are infected or infested by the pest under natural conditions, 2) are frequently described as major, primary, or preferred hosts, and 3) have primary evidence for feeding and damage documented in the literature. Plants are highlighted in bold if they are commercially produced and the pest causes economically significant damage.

Preferred cultivated hosts

***Fragaria* spp. (strawberry)**[*], ***Rosa* spp. (rose)**[*], ***Rubus* spp. (blackberry and raspberry)**[*] (Höhn and Stäubli, 1989; Jørgensen, 1980; Krauß et al., 2014; Popov, 2017; Tonina et al., 2021).

Other reproductive hosts

Alchemilla zanthochlora (lady's mantle), *Cotoneaster intricata*, *Cotoneaster monogyna*, *Cotoneaster sanguinea*, *Dasiphora davurica*, *Dasiphora* × *friederichsenii*, *Dasiphora fruticosa* (shrubby cinquefoil)[*], *Drymocallis rupestris* (rock cinquefoil), *Geum chiloense* (scarlet avens), *Potentilla anserina* (silverweed cinquefoil)[*], *Potentilla argentea* (silvery cinquefoil)[*], *Potentilla collina* (palmleaf cinquefoil)[*], *Potentilla grandflora* (spring cinquefoil)[*], *Prunus spinosa* (blackthorn)[*] (Glowacki, 1966; Lekić, 1962; Popov, 2017).

Other plants (adult feeding only)

Arctium lappa (burdock)[*], *Barbarea vulgaris* (yellow rocket)[*], *Cirsium arvense* (Canada thistle)[*], *Cirsium scariosum* (meadow thistle)[*], *Geum aleppicum* (yellow avens)[*], *Geum bulgaricum*, *Geum* × *intermedium*, *Geum macrophyllum* (largeleaf avens)[*], *Geum magellanicum*, *Geum urbanum* (herb bennet)[*], *Matricaria chamomilla* (German chamomile)[*], *Marticaria discoidea* (disc mayweed)[*], *Ribes nigrum* (black current), *Rudeckia laciniata* (cutleaf coneflower)[*], *Rumex acetosa* (garden sorrel)[*], *Taraxacum* sp. (dandelion)[*], *Tripleurospermum inodorum* (false mayweed)[*] (Lekić, 1962; Popov, 2017; Tonina et al., 2021).

Pest Importance

Losses due to *A. rubi* in ornamental *Rosa* spp. have been reported as high as 20 percent (Glowacki, 1966), and 50-80 percent for strawberries (Krauß et al., 2014; Manole et al., 2013; Ourednícková, 2011; Steen et al., 2013). In raspberries, *A. rubi* clipping has resulted in 30 percent of flower buds being damaged (Linder et al., 2011).

[*] indicates species that are present in the United States

However, historically a lost bud was considered the equivalent of a lost fruit. Research on modern strawberry varieties and growing practices have shown that compensation or resistance for lost buds is common and losses are less severe than previously believed (Antonova and Tsolova, 2016; Arus et al., 2008; Cross and Burgess, 1998; McPhie and Burrack, 2017). Even though compensation is common in modern strawberry varieties, if *A. rubi* is introduced in production areas, populations would require monitoring and treatment (Kovanci et al., 2005). Feeding on the fruit by *A. rubi* could reduce marketability and further reduce yield (Tonina et al., 2021).

The detection of *A. rubi* in Canada has impacted trade with the United States. In September, 2021, a Federal Order was issued to prevent the spread of this pest from Canada via plants for planting (PPQ, 2021). This order states that all *Fragaria* spp., *Rosa* spp., and *Rubus* spp. plants for planting produced in Canada must be accompanied by a phytosanitary certificate declaring them to be free of *A. rubi* prior to shipment into the United States. There may also be trade implications with other countries if this weevil becomes established in the United States. *Anthonomus rubi* is listed as a harmful organism by Chile (USDA-APHIS, 2021). In addition, the genus *Anthonomus* is listed as a harmful organism by Egypt, Hong Kong, Israel, and Madagascar (USDA-APHIS, 2021).

Known Distribution

Africa: Algeria; **Asia:** Armenia, Azerbaijan, China, Kazakhstan, Kyrgyzstan, Mongolia, South Korea, Turkey, Vietnam; **Europe:** Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Netherlands, Norway, Poland, Romania, Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, United Kingdom, Ukraine; **North America:** Canada (British Columbia) (Aasen and Trandem, 2006; Antonova and Tsolova, 2016; Arus et al., 2008; Beeke et al., 1980; Clymans et al., 2019; Cross and Burgess, 1998; Dieckmann, 1968; Franklin et al., 2021; Glowacki, 1966; Grancher, 2015; Höhn and Stäubli, 1989; Hong et al., 2012; Ioanisiyani and Laurova, 1968; Jørgensen, 1980; Kanianska et al., 2020; Korotyaev and Sofronova, 2020 Kovanci et al., 2005; Krauß et al., 2014; Legalov, 2000; Lekić, 1962; Manole et al., 2013; Mazur, 2002; Mikošić, 2011; Morris, 1971; Nakládal, 2011; Petrova et al., 2006; Popov, 2017; Sagvolden and Hansen, 2001; Tonina et al., 2021; Tozlu et al., 2005; Ugarte and Alonso-Zarazaga, 2002; Veszelka and Fajcsi, 2003; Weissinger et al., 2014).

Status of infestation in the United States (November 2021)
Strawberry blossom weevil was detected in Whatcom county, Washington in two separate instances in 2021 (Lavallee, 2021).

Pathway

Anthonomus rubi could enter the United States through natural spread from Canada. In Canada, three of the collection records of *A. rubi* were made within 20 meters of the United States-Canada border in British Columbia (Franklin et al., 2021). This beetle has the ability to move at least 70 meters per year (Popov, 2017); however, less than 10 percent move farther than 10 meters if hosts are available (Popov, 2017). If populations

persist on the Canadian side of the border, *A. rubi* could enter the United States via natural spread.

Anthonomus rubi spread could also be associated with the movement of host plants. Eggs, larvae, and pupae are found inside closed flower buds of host plants (Vidano et al., 1990). These buds are typically severed by the egg-laying female but can remain attached to the stem for some time after partial severing occurs (Vidano et al., 1990). Adults may be found in semi-expanded leaves at the base of the plant (Popov, 2017). Soil is not considered to be an overwintering substrate of *A. rubi* (Krauß et al., 2014; Popov, 2017); however, active adults may be found on the soil's surface. *Anthonomus rubi* has been intercepted at ports of entry two times since 1986, both on nonhost commodities (AQAS, 2021), showing that this weevil can be a hitchhiker in trade.

Use the PPQ Commodity Import and Export manuals listed below to determine 1) if host plants or material are allowed to enter the United States from countries where the organism is present and 2) what phytosanitary measures (e.g., inspections, phytosanitary certificates, post entry quarantines, mandatory treatments) are in use. These manuals are updated regularly.

Plants for Planting Manual: This manual is a resource for regulating imported plants or plant parts for propagation, including buds, bulbs, corms, cuttings, layers, pollen, scions, seeds, tissue, tubers, and like structures.
https://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/plants_for_planting.pdf

Cut Flowers and Greenery Import Manual: This manual is a resource for regulating imported fresh, cut plants used for decoration and for protecting plants from extinction due to trade.
https://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/cut_flower_imports.pdf

Treatment Manual: This manual provides information about treatments applied to imported and domestic commodities to limit the movement of agricultural pests into or within the United States.
https://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/treatment.pdf

Potential Distribution within the United States

Based on the current distribution of *A. rubi* and a comparison of Global Plant Hardiness Zones, we predict *A. rubi* could establish in Plant Hardiness Zones 5-9 (Takeuchi et al., 2018). These Plant Hardiness Zones correspond to the majority of the contiguous United States and coastal southern Alaska. However, it is unlikely that *A. rubi* would establish in northern New England, northwestern Wisconsin, Minnesota, North Dakota, northern Montana, parts of the Rocky Mountains, southern Florida, Hawaii, and Puerto Rico because these areas are outside of U.S. Plant Hardiness Zones 5-9. Cultivated and wild hosts are found throughout the endangered area (USDA-NRCS, 2021).

Survey and Key Diagnostics

Approved Methods for Pest Surveillance*:

For the current approved methods and guidance for survey and identification, see Approved Methods for Pest Surveillance (AMPS) pest page on the CAPS Resource and Collaboration website, at https://caps.ceris.purdue.edu/approved-methods.

References

Aasen, S. S., and N. Trandem. 2006. Strawberry blossom weevil *Anthonomus rubi* Herbst (Col.: Curculionidae): relationships between bud damage, weevil density, insecticide use, and yield. Journal of Pest Science 79:169-174.

Alford, D. V. 2014. Pests of Fruit Crops: A Colour Handbook. Second Edition (2nd). CRC Press, Boca Raton, FL. 461 pp.

Antonova, V., and E. Tsolova. 2016. Evaluation of resistance of selected strawberry cultivars to *Rhynchites grmanicus* Herbst and *Anthonomus rubi* Herbst (Coleoptera: Curculionidae). Bulgarian Journal of Crop Science 53(4):27-33.

AQAS. 2021. Agricultural Quarantine Activity Systems (AQAS), 280 Commodity Report. United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS).

Arus, L., A. Luik, A. Libek, and K. Olep. 2008. The damage of the strawberry blossom weevil (*Anthonomus rubi*) depending on raspberry cultivars and mulching in Estonia. Proceedings of International Scientific Conference "Sustainable Fruit Growing: From Plant To Product", Dobele, Latvia. May 28-31, 2008.

Beeke, H., D. J. de Jong, and J. P. W. Noordink. 1980. De aardbeibloesemkever (*Anthonomus rubi*). Waarnemingenen veldproeven in 1979. Fruitteelt 70(18):612-614.

Clymans, R., C. de Schaetzen, M. Delbol, N. Ebrahimi, H. Casteels, T. Belien, and D. Bylemans. 2019. *Anthonomus spilotus* (Coleoptera: Curculionidae): new to the Belgian fauna. Belgian Journal of Zoology 149(1):15-21.

Cross, J. V., and C. M. Burgess. 1998. Strawberry fruit yield and quality responses to flower bud removal: A simulation of damage by strawberry blossom weevil (*Anthonomus rubi*). The Journal of Horticultural and Science Technology 73(5):676-680.

Cross, J. V., and M. A. Easterbrook. 1998. Integrated management of flower pests of strawberry. IOBC/wprs Bulletin 21(10):81-87.

Dieckmann, L. 1968. Revision der westpaläarktischen Anthonomini (Coleoptera: Curculionidae). Beiträge zur Entomologie 18(3-4):377-564.

Easterbrook, M., J. Fitzgerald, C. Pinch, J. Tooley, and X. M. Xu. 2003. Development times and fecundity of three important arthropod pests of strawberry in the United Kingdom. Annals of applied biology 143(3):325-331.

Franklin, M. T., T. K. Hueppelsheuser, P. K. Abram, P. Bouchard, R. S. Anderson, and G. A. P. Gibson. 2021. The Eurasian strawberry blossom weevil, *Anthonomus rubi* (Herbst, 1795), is established in North America. The Canadian Entomologist 153(5):579-585.

Glowacki, J. 1966. Uwagi o niektórych owadach szkodliwych w owocach czereśni i głogu. Polskie Pismo Entomologiczne, Series B 43-44:335-339.

Grancher, J. 2015. Bilan d'un suivi de trois mois de la population des Coléoptères sur deux terrasses alluviales de Haute-Normandie : Tosny et Courcelles-sur-Seine (27). L'entomologiste Haut-Normand 5:25-34.

Höhn, H., and A. Stäubli. 1989. Erdbeerblütenstecher und Himbeerkäfer. Agroscope Wädenswil, Merkblatt 17:1-3.

Hong, K.-J., S. Park, and K. Han. 2012. Arthropoda: Insecta: Coleoptera: Curculionidae: Curculioninae, Cossoninae, Mesoptiliinae Weevils II. National Institute of Biological Resources, Republic of Korea. 179 pp.

Ioanisiyani, T. R., and N. K. Laurova. 1968. On the ecology of the strawberry blossom weevil (*Anthonomus rubi* Hbst.) in the conditions of Byelorussia. Vestsi Akademii Navuk Belaruskai SSR, Seryya Biyalagichnykh Navuk (2):95-100, 141.

Jeger, M., C. Bragard, D. Caffier, T. Candresse, E. Chatzivassiliou, K. Dehnen-Schmutz, G. Giliolo, J.-C. Gregoire, J. A. J. Miret, M. N. Navarro, B. Niere, S. Parnell, R. Potting, T. Rafoss, V. Rossi, G. Urek, A. Van Bruggen, W. Van der Werf, J. West, S. Winter, E. Czwienczek, M. Aukhojee, and A. MacLeod. 2017. Pest categorisation of *Anthonomus signatus*. EFSA Journal 15(7):4482.

Jørgensen, J. 1980. An attack by the strawberry blossom weevil (*Anthonomus rubi* (Herbst.)) on roses Coleoptera: Curculionidae). Entomologiske Meddelelser 48(1):47-48.

Kanianska, R., J. Jaďuďová, M. Kizeková, J. Makovníková, B. Šiška, J. Varga, and N. Benková. 2020. Soil arthropods in differently used agroecosystems along an ecological gradient in Slovakia. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis 68(3):507-518.

Korotyaev, B. A., and E. V. Sofronova. 2020. Weevils of the genus *Anthonomus* Germar (Coleoptera: Curculionidae) in the south of East Siberia. Proceedings of the Russian Entomological Society 91:129-140.

Kovanci, O. B., B. Kovanci, and N. S. Gencer. 2005. Sampling and development of economic injury levels for *Anthonomus rubi* Herbst adults. Crop Protection 24:1035-1041.

Krauß, A., C. Steen, and C. P. W. Zebitz. 2014. Phenology of the strawberry blossom weevil and damage in strawberries. Pages 232-236 *in* 16th International Conference on Organic Fruit-Growing. Fördergemeinschaft Ökologischer Obstbau eV (FÖKO), Stuttgart-Hohenheim, Germany.

Lavallee, S. 2021. RE: *Anthonomus rubi* information request. Personal communication to D. McPhie on November 17, 2021, from S. Lavallee (National Policy Manager, USDA-PPQ).

Legalov, A. A. 2000. Contribution to knowledge of *Anthonomus rubi* (Coleoptera, Curculionidae) from Asian parts of Russia and adjacent territories. Entomological Review 80(1):120-123.

Lekić, M. 1962. Razvojni ciкlus i ekologija jagodinog cvetojeda. Zaštita Bilja 67-68:87-100.

Linder, C., C. A. Baroffio, and C. Mittaz. 2011. Monitoring *Anthonomus rubi* damages in raspberry fields. IOBC/wprs Bulletin 70:165-169.

Manole, T., I. Ionescu-Mălăncuş, P. Niculiţă, and E. Petrescu. 2013. *Anthonomus rubi* (Herbst, 1795) (Coleoptera: Curculionidae) a new dangerous pest in the ecological crops of strawberry in the southern regions of Romania. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development 13(4):201-204.

Mazur, M. 2002. The distribution and ecology of weevils (Coleoptera: Nemonychidae, Attelabidae, Apionidae, Curculionidae) in western Ukraine. Acta Zoologica Cracoviensia 45(3):213-244.

McPhie, D., and H. J. Burrack. 2017. Effect of simulated *Anthonomus signatus* (Coleoptera: Curculionidae) injury on strawberries (*Fragaria* x *ananassa*) grown in southeastern plasticulture production. Journal of Economic Entomology 110(1):208-212.

Mikošić, K. 2011. Razmnožavanje pasje ruže (*Rosa canina* L.). University of Zagreb, Zagreb, Croatia. 39 pp.

Morris, M. G. 1971. Additional records of weevils from the Burren region (Coleoptera, Curculionoidea). The Irish Naturalists' 17(4):139-141.

Nakládal, O. 2011. Results of a faunistic survey of beetles (Coleoptera) in Hejtmanka Nature Reserve (Czech Republic, northern Moravia, Litovelské Pomoraví Protected Landscape Area) in 2009. Acta Musei Beskidensis 3:103-129.

Ourednícková, J. 2011. Efficacy of some selected products against the strawberry blossom weevil (*Anthonomus rubi*, Herbst, 1795). Vedecké Práce Ovocnárské 22:213-222.

Peck, S. B., and M. C. Thomas. 1998. A distributional checklist of the beetles (Coleoptera) of Florida (Entomology Contribution No. 862). Florida Department of Agricultural and Consumer Services. 191 pp.

Petrova, V., Z. Čudare, and R. Cibuļskis. 2006. Predators and herbivores beetles (Coleoptera) naturally occurring on strawberry (Latvia). Acta Biologica Universitatis Daugavpiliensis 6(1-2):155-159.

Popov, S. Y. 2017. Population and Ecology of Strawberry Blossom Weevil, *Anthonomus rubi* Herbst (Coleoptera: Curculionidae), and Approaches to Limiting its Damage. Rosinformagrotekh, Moscow. 284 pp.

PPQ. 2021. APHIS amends requirements for *Fragaria* spp., *Rosa* spp., and *Rubus* spp. plants for planting from Canada into the United States to prevent the entry of the strawberry blossom weevil (*Anthonomus rubi*) (Federal Order DA-2021-25). United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (PPQ) 2pp.

Sagvolden, B. A., and L. O. Hansen. 2001. Notes on Norwegian Coleoptera 5. Norwegian Journal of Entomology 48:281-287.

Steen, C., K. Dillmann, and R. Ortlieb. 2013. rdbeerblütenstecher (*Anthonomus rubi* Herbst): Netzabdeckung als Kontrollmöglichkeit in einjährigen Erdbeer-beständen in der späten Sorte Malwina. Beiträge zur 12. Wissenschaftstagung Ökologischer Landbau 5(8):326-329.

Takeuchi, Y., G. Fowler, and A. S. Joseph. 2018. SAFARIS: Global Plant Hardiness Zone Development. North Carolina State University, Center for Integrated Pest Management; United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine, Science and Technology, Plant Epidemiology and Risk Analysis Laboratory.

Tonina, L., G. Zanettin, P. Miorelli, S. Puppato, A. G. S. Cuthbertson, and A. Grassi. 2021. *Anthonomus rubi* on strawberry fruit: Its biology, ecology, damage, and control from an IPM perspective. Insects 12:701.

Tozlu, G., S. M. Maharramova, I. G. Kerimova, and E. A. Huseynova. 2005. Coleoptera (Cerambycidae, Curculionidae) of the oil-polluted forests in north eastern Azerbaijan. Linzer biologische Beiträge 37(1):477-488.

Ugarte, I., and M. A. Alonso-Zarazaga. 2002. Bibliographical catalogue of the Curculionoidea (Coleoptera) of the Basque Country (exc. Scolytidaeand Platypodidae). Naturzale 17:253-264.
USDA-APHIS. 2021. Phytosanitary Export Database (PExD), Phytosanitary Certificate and Issuance Tracking System (PCIT). United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS). https://pcit.aphis.usda.gov/PExD/faces/PExDReport.jsp.
USDA-NRCS. 2021. The PLANTS database. United States Department of Agriculture (USDA), Natural Resources Conservation Service (NCRS).
Veszelka, M. S., and M. Fajcsi. 2003. Changes of the dominance of arthropod pest species in Hungarian raspberry plantations IOBC/wprs Bulletin 26(2):29-36.
Vidano, C., G. Scanabissi, and A. Arzone. 1990. Indagini biologiche e fitopatologiche su *Anthonomus rubi* Herbst (Coleoptera Curculiondae). Redia 73(2):365-380.
Weissinger, H., H. Flachowsky, and A. Spornberger. 2014. Evaluation of new strawberry breeding clones for organic production on a Verticillium-infested site in Eastern Austria. Ecofruit. 16th International Conference on Organic-Fruit Growing: Proceedings, Hohenheim, Germany. 2014, February 17-19.

USDA-APHIS-PPQ-ST staff developed this datasheet. Cite this document as:

PPQ. 2022. Cooperative Agricultural Pest Survey (CAPS) Pest Datasheet for *Anthonomus rubi* (Curculionidae): Strawberry blossom weevil. United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (PPQ), Raleigh, NC.

Versions

February 2022: Datasheet completed (Version 1)

Reviewer(s)

Michelle Fountain, National Institute of Agricultural Botany, East Malling Research (NIAB-EMR), United Kingdom
Michelle Franklin, Agriculture and Agri-Food Canada
Lorenzo Tonina, Independent Agricultural Entomologist, Italy
Giulia Zanettin, Independent Agricultural Entomologist, Italy