

# Key to Galls on Grapes

## Galls on Vitis (Vitaceae)

A key to the galls on Vitis (grapes) in North America. Created by Adam Kranz.

- 1a.** Integral: gall is an outgrowth or modification of existing plant tissue and cannot be cleanly separated from it. .... **2**
- b.** Detachable: gall can be separated from the plant tissue it grows on. .... **5**
- 2a.** On main stem, a slight swelling typically directly adjacent to a node. Contains *Ampelogypter sesostris* beetle larva and frass. ....
- b.** Swollen buds containing gall midge larvae. .... *Contarinia johnsoni*
- c.** On petiole or tendrils; tapered swellings with matte green exterior when fresh, brown *Neolasioptera vitinea* and often splitting longitudinally with age. ....
- d.** On leaves, petioles, inflorescences, and tendrils; abrupt swellings, either densely *Vitisiella brevicauda* clustered across many tissues or scattered in globules on leaves, exterior pink-red, succulent and glossy, developing small egress holes on the upper side later in the season. ...
- e.** Exclusively on leaves. .... **3**
- 3a.** Blistering above with corresponding patches of white, red, or brown erineum below. .... *Colomerus vitis*
- b.** Numerous globular pockets on the lower side of the leaf with hairy tufts above. *Daktulosphaira vitifoliae* Extremely common. ....
- c.** Broad, flat, light yellow-green swellings on both sides of the leaf, thick-walled in spring *Heliozela aesella* but hollow with large opening holes by early summer. ....
- d.** Many small globular swellings, often pink-red and succulent and resembling *Vitisiella brevicauda* but differing in surface features. .... **4**
- 4a.** A tuft or covering of hairs. .... *Vitisiella vitis-tuft-gall*  
*Highly variable; may represent multiple species.*
- b.** A narrow, hairy, sometimes curved protrusion on the lower side. .... *Dasineura v-cinerea-hook-gall*
- 5a.** On stem at nodes (replacing buds). .... **6**
- b.** On leaves. .... **7**
- 6a.** One (sometimes several) large, globular, polythalamous gall(s). May be hairy or *Ampelomyia vitispomum* glabrous, ribbed or smooth. ....
- b.** A cluster of typically 10 or more pointed-globular monothalamous galls. May *Ampelomyia vitiscoryloides* be hairy or glabrous. ....

**7a.** Numerous elongate, conical galls scattered on either the upper or lower side of the leaf (typically not both). Yellow, turning red with exposure to the sun. May be hairy or glabrous. ..... *Ampelomyia viticola*

*Nearly identical galls on Vitis tilifolia in Mexico may or may not be a distinct species (Ampelomyia v-tilifolia-pubescent-conical-gall).*

**b.** Numerous abruptly truncated cylindrical hairless yellow galls scattered on the lower side of the leaf. .... *Ampelomyia v-mustangensis-lower-tube-gall*

*Common on Vitis mustangensis but similar galls have been observed on other Vitis species.*

**c.** One or two wide ovate-conical galls causing a bunching of leaf tissue beyond the location of the gall. Green, turning red in the sun. May be hairy or glabrous. .... *Ampelomyia vitis-large-cone-gall*