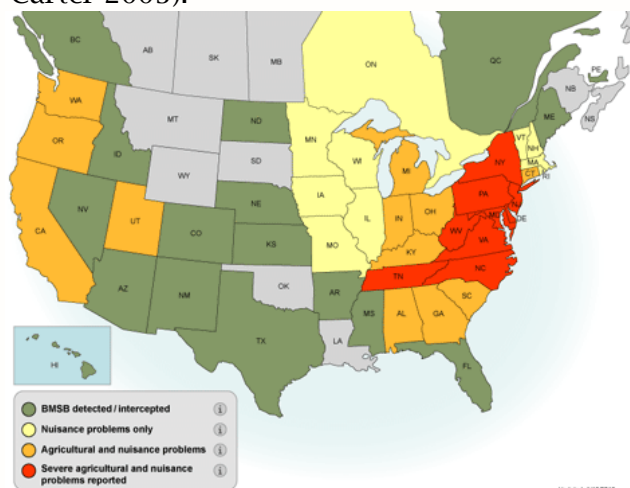


Caashaa-Qurunta Midabka Bunniga ah leh, *Halyomorpha halys*

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HORUDHAC

Caashaa-qurunta midabka bunniga leh ee magaceedda loo soo gaabiyo (BMSB), *Halyomorpha halys*, waa cayayaan dhirta gala oo markii ugu horeeysay laga helay gobolka Pennsylvania sannadkii 1996 (Hoebeke & Carter 2003).



Muuqaal 1. Firirsanaata BMSB Janaayo, 2018 (Source: StopBMSB <http://www.stopbmsb.org/where-is-bmsb/state-by-state/>).

Wixii kolkaa ka dambeeyey waxa ay ku faaftay inta badan wadanka U.S. waxa ayna gaartay heer looga aqoonsado dulan ahaan 10 gobol oo ku yaal bariga wadanka U.S. (Muuqaal 1). In Minnesota, BMSB waxaa markii ugu horeeysay laga helay sannadkii 2010 St. Paul, MN (Koch 2013), hada waxaa jira dhowr meelood oo uu ku tarmay oo u dhow Magaalooyinka Mataanaha (Twin Cities).

Waxa jira meelo badan oo BMSB ku uu gali karo oo ay ku jiraan 170 nooc oo dhir ah, laakiin tiradaa iyada ah waxaa la filayaa in ay sii kororto (Bergmann et al. 2015).

Dalagyada lama huraanka ah ee gobolada Galbeedka-Dhexe (Midwest) ee wadanka ee cayayaankani wax yeeli karo waxaa ku jira tufaaxa, dhafaruurta, sabuulka, galeyda macaan, digirta dooga ah, canabka khamriga, sooybiin, iyo sidoo kale noolayaal badan oo kala duwan oo geedaha ku dhex nool.

BAAY'OOLIJIGA

BMSB gaamuray dherarkiisu waa ½, waxa uuna leeyahay midab buni ah oo qaab gaashaan leh (muuqaal 2). Waxaa jira dhowr nooc oo caashaa quran ah oo muuqaal ahaan isu eg, laakiin, raxantan astaamaha ah ee soo socotaa waxa ay gaar u tahay BMSB.



Muuqaal 2. BMSB gaamuray (David R. Lance, USDA APHIS PPO, Bugwood.org).

Geesku waa madow yahay waxa ayna leedahay diilino khafiif midabkoodu yahay, waxaa jira in ay caloosha hareeraheeda ku leedahay midab madow dhalaal xigeen ah oo talan taali ah, dhanka hoose ee calooshana waxay ku leedahay midab khafiif ah garbahuna waa mulaax waana wareegsan yihiin.

Kuwa gaamuray waxa ay ka soo baxaan bartanka iyo dhamaadka xilliga Gu'ga meelihii ay ku jireen xiligii qaboobaha oo ah meelaha caleemaha geeduhu ay ku daataan oo dhismayaasha u dhow. Gobolka Minnesota waxa aanu ku aragnay raad BMSB dhismayaasha dibadeeda xataa bisha Maajo 15. Qiyaastii labo asbuuc ka dib kolka ay soo baxaan kuwa gaamuray waa ay wada galmoodaan kuwa dhadiga ahina waxa ay bilaabaan in ay ukun dhalaan. Ukuntu waxa ay leedahay midab cadaan iyo doog isugu jira, qaab haaneed, waxa ay dhashaan iyagoo raxan-raxan ah waxa ayse inta badan ku dhashaan dhinaca hoose ee caleenta. (Muuqaal. 3).



Muuqaal. 3. Raxan ukun ah ee BMSB (David R. Lance, USDA APHIS PPO, [Bugwood.org](https://bugwood.org/)).

Waxaa jira shan marxaladood oo xajmigoodu kala yahay <0.25 cm (1st instar) to 1.25 cm (5th instar) oo cayayaani maro. Kan ugu horeeya waxa uu yeeshaa midab dhalaala oo guduud iyo jaalle iyo madow isugu jira (Muuqaal. 4).

Mar ka dambe waxa ay yeelataa midab buni iyo giir-giir isugu jira (Muuqaal. 5). Waqooyiga Bariga ee wadanka U.S., waxa BMSB u kaca ku hal jiil ama fac/sannadkiiba.



Muuqaal. 4. Dhalin yaro ah (1st instar) BMSB ah (David R. Lance, USDA APHIS PPO, <https://bugwood.org/>).



Muuqaal. 5. Waaweyn (3rd or 4th instar) BMSB (David R. Lance, USDA APHIS PPO, [Bugwood.org](https://bugwood.org/)).

KHASAARAHA

BMSB waxa ay quudataa khudrada, qobka miraha, ubaxa aan wali dilaacin, caleenta, iyo jirrida iyadoo isticmaalaysa qaybta wax mudda waxna dhuuqda ee afkeeda. Quudashada ay quudayaan khudradu waxa ay keentaa khasaarooyin kala duwan oo u dhaxeeya mid fudud oo iska ah baro mad-madow oo lagu arko khudrada iyo kuwo aad u culus si weyna u haleeya khudrada. Tufaaxa oo kale, khasaaraha soo gaaraya waa uu sii balaartaa kolka mirahu ay sii gaamuraanba, taasoo keenta tufaax “waji mukulaaleed leh” (Muuqaal. 6) iyo tufaaxa oo

gudaha ku yeesha haarmid, kuwaa oo aakhirka ka dhiga khudradaha kuwa aan la suuq geyn karin.



Muuqaal 6. Halow tufaax oo ay keentay quudashada BMSB (sare); haarmid gudaha oo ay keentay quudashada tufaaxa ee (hoose) (Douglas Pfeiffer, Dept. Entomology, Virginia Tech).

Canabka khamriga laga sameeyo, quudashada BMSB ay cunto canabkaa waxa ay keentaa in mirahu ay jilcaan ayna suurto gal noqoto in ay noqdaan jid ay cudurradu maraan, hase yeeshee, waxa dhici kara in walaac badani ka dhashaa waa khatarta ka dhalan karta sunta uu BMSB wato. Bariga wadanka U.S., kuwa gaamauray iyo kuwa weli korayo waxaa lagu arkay iyagoo ku duuduuban xirmooyinka canabka ah kolka heerkulka hawadu uu qaboobay (muuqaal. 7). Kani waxa ay abuuri kartaa in la soo gooyo BMSB ku galoolan canabka soo go'a. Kolkaa kolka khamriga la sameynayo kiimikada uu sii daayo BMSB waxa ay halayn kartaa khamriga, taa oo kolkaa ka dhigi khamriga mid aan la suuq geyn Karin.



Muuqaal 7. BMSB gaamuray oo ku dhagan tufaax (Douglas Pfeiffer, Dept. Entomology, Virginia Tech).

MAAREYNTA

Waxa aanu hada kor kala soconaa BMSB meelo badan oo kala duwan ku sugan waxa aanu waydiinaa beeralayda in ay ka baaraan BMSB dalagooda, si kolkaa aan u eegno sida laga yaabo in dalaga Minnesota wax u noqdo. Waxa aanu sii wadi doonaa in aan ka sii shaqeyno qaabeynta talooyinka ugu fiican ee suurta gal ah ee aan siin karno beeralayda dalagoodu wax noqdo waxa kaloo oo aanu ka dhigi karnaa akhbaartan mid laga heli karo warqada macluumaadka iyo/ama waxa aanu soo gelinaynaa shabakada (web) akhbaarta ugu dambaysay ee ku saaban FruitEdge (<https://www.fruitedge.umn.edu/>) iyo VegEdge (<https://www.vegedge.umn.edu/>).

Beeralayda ka shakiya in ay dhici karto in ay ka heleen BMSB beertooda waa in ay qaadaan saamiyo ka dibna kala soo xiriiraan Mashruuca ka Digtoonaanta Dulinka ee MN (MN Pest Alert Program), emaylka: arrest.the.pest@state.mn.us.

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