

2019 GFID International Symposium

SFTS Virus Infection and Control

2019. 10. 17일(목), 08:30 ~ 18:00

쉐라톤 서울 팔레스 강남

프로그램 요약

Time	Program
08:00-08:40	Registration
08:40-09:10	Opening Ceremony
09:10-09:40	Special Lecture
09:40-12:00	Session 1. Current status SFTSV infection in East Asia
12:00-13:30	Lunch and Poster Session
13:30-15:20	Session 2. Advanced technologies of Diagnosis, Treatment, and Prevention
15:20~15:30	Coffee break
15:30-17:20	Session 3. New knowledge in mode of SFTSV transmission and pathogenesis
17:20-18:00	Session 4. One Health to Control SFTSV infection



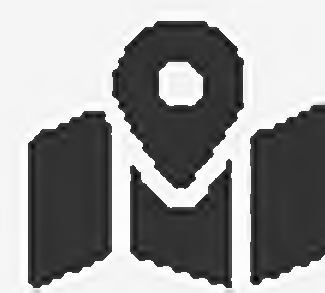
참가자 사전등록



POSTER 등록



프로그램



오시는길

Hard tick (Ixodida: Ixodidae) catching by 3 kinds of attractant in Korea

Gwang Rae Noh , Dong in Kim , Se Hoon Woo , Rustem Ilyasov , and Hyeong Wook Kwon*

1 Department of Biological Sciences & Convergence Research Center for Insect Vectors,
Incheon National University, Incheon, Republic of Korea

2 Institute of Biochemistry and Genetics, Ufa Federal Research Center, Russian Academy of
Sciences, Ufa, Russia

(Correspondence should be addressed to hwkwon@inu.ac.kr)

Abstract

Hard ticks (Ixodida: Ixodidae) transmit many important infectious H diseases such as Lyme disease, SFTS, and Tick-borne encephalitis. Even though mosquitoes are considered most serious disease vectors to humans and animals, hard ticks tend to flourish in many areas in the world and considered as the second most important disease vectors to humans and animals (Wikel, 2018). For surveillance to monitor hard ticks, they can be collected by a flagging method and tick-specific bait traps in Korea among which tick bait traps need attractants. Since only dry ice (CO₂) is used to attract hard ticks currently, real population in a given area is vague so far. Thus, in this experiment, we used different kinds of attractant to compare catch rates in addition to CO₂, such as mammalian odorants including nonanal, 1-octen-3-ol, fatty acids, which are commercially used in BG trap and Chigger mite trap (Steullet & Guerin, 1994; Soaresa & Borges, 2012).

1. Dominant species of hard ticks collected in this study was *Haemaphysalis* spp. because most collected hard tick were reported as *Haemaphysalis* spp. in Korea (Noh et al., 2018; Song et al., 2017).

2. Dry ice (CO₂) and attractants used in BG trap were significantly strong in attracting hard ticks, but attractants used in Chigger mite trap were not able to attract hard ticks.

3. Among species and stages of ticks, nymphs of *Haemaphysalis longicornis* were mostly attracted to tick bait traps. Among any stages and species collected in this study, hard ticks were shown best tendency of attractions.

4. Many hard tick species in America and Europe showed strong attraction to mammalian odorants (Steullet & Guerin, 1994; Yoder et al., 1998; Soaresa & Borges, 2012; Carr & Roe, 2016). However, our study showed *H. longicornis* ticks showed strong attraction behaviors.

5. Hard ticks in Korea were also strongly attracted to mammalian odorants. Our study demonstrated that mammalian odorants with dry ice (CO₂) used in tick bait traps in downstream of wind condition showed best scores of collection, compared to the usage of only dry ice.

Noh G.R., Kim D.I., Woo S.H., Ilyasov R.A., Kwon H.W. Hard tick (Ixodida: Ixodidae) catching by 3 kinds of attractant in Korea // Proceedings of the Government-wide R&D Fund project for infectious disease research (GFID) International Symposium SFTS Virus Infection and Control 17 October 2019. Korea, Seoul: Government-wide R&D Fund project for infectious disease research (GFID). P. 281.

POSTER

이름 : 노광래

소속 : 인천대학교

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Hard tick (Ixodida: Ixodidae) catching by 3 kinds of attractant in Korea

Gwang Rae Noh, Dong in Kim, Se Hoon Woo, and Hyeong Wook Kwon*Rustem Ilyasov

Department of Life Sciences and Convergence Research Center for Insect Vectors, Incheon National University, Republic of Korea

Hard ticks are collected by flagging and tick bait traps in Korea. Usually, tick bait traps are used CO₂ attractant (Dry Ice). As well, mammal's odors (Nonanal, 1-octen-3-ol, fatty acids) can attract hard ticks. Hard ticks were collected by 3 attractants: (1) Dry Ice, (2) BG sentinel trap (Biogent Co., mosquito trap) attractant (Lactic acid, ammonia, and caproic acid), and (3) chigger mites trap (E-TND Co.) attractant (Acetic acid, Ammonium bicarbonate, Octanol, Hexanoic acid, and Solvent). We found Dry Ice is best attractant, whereas BG sentinel trap's attractants are able to attract hard ticks too. Thus, mosquito attractants in combination with CO₂ can improve hard ticks catching by tick bait traps.

검색어: Hard tick, Genus *Haemaphysalis*, CO₂, Tick bait trap, Attractant