UNMANNED AERIAL SYSTEMS (UAS) IN MOSQUITO AND VECTOR CONTROL

ISSUE : H.R. 820, the Foreign Adversary Communications Transparency Act, and H.R. 2864, the Countering CCP Drones Act, if enacted, will unduly restrict the use of UAS critical for public health and vector control purposes.

Members of the American Mosquito Control Association (AMCA) have been transitioning to the use of drones for both mosquito monitoring, and public health focused pesticide application. A 2023 AMCA member survey revealed that 56% of respondents are currently using drones and an additional 32% are planning to deploy drones. Among the most common uses, larvicide application in rural areas, surveillance for standing water, mapping, and urban applications of larvicides are the most significant. Three types of drones are utilized by AMCA members: large spray drones, small spray drones, and camera/sensor drones. Of these, the drones manufactured by DJI make up the largest proportion with 81% share for camera/sensor drones, nearly half (45%) of small spray drones, and while a much smaller proportion, a still significant 26% of large spray drones.

The benefits of drones in mosquito control include allowing for more timely and precise access to areas that produce mosquitoes to detect standing water, apply mosquito control products (mostly larvicides to standing water at this point), and eliminate environmental impacts of traditional mosquito control methods in sensitive areas such as walking through wetlands with backpack sprayers, using amphibious tracked vehicles, using helicopters or fixed wing aircraft on smaller target areas or near populated areas.

Drones manufactured by DJI have been a good choice, and in many cases the only choice for many public health applications as they are easy to use, less than half the cost and have had more flight hours demonstrating airworthiness leading to faster approvals from the Federal Aviation Administration compared to U.S. manufactured drones. Public health uses of drone technology require significant and lengthy operational, regulatory, and, at times, hardware, and software customization to be safe and effective at performing mosquito control related operations. Because each drone system is different, this process must be repeated and significant public expense for each new system a mosquito control agency acquires.

AMCA understands that there may be cybersecurity concerns surrounding the fact that DJI is a Chinese company, however, it is important to realize that vector control uses of UAS by public agencies do not generally operate in and around critical infrastructure or engage in sensitive aerial data collection. Further, the limited budgetary resources available to mosquito control districts require that AMCA members exercise fiscal responsibility with the purchase and operation of the tools that we use to protect public health. Banning DJI drones will result in significant public expense to replace, or if the funding is not available, increase risk of public health emergencies.

NEEDED ACTION:

- **AMCA asks that the public health mission of mosquito control agencies be taken into consideration when determining how to regulate UAS technology and address cybersecurity concerns.**
- **AMCA asks that H.R. 2864 be amended to allow mosquito control agencies, reasonable accommodations to allow drones, produced by DJI or any other manufacturer approved by the FAA, to continue to be to be used to monitor and control mosquitoes to protect public health in non-critical infrastructure areas.**