


MEMO TO : Interested Parties
FROM : Elizabeth Trythall 
Environmental Scientist
Division of Air Quality
RE : Aerial Application of Pesticide
DATE : June 16, 2023

Background:

NDAC 33.1-15-10 states that aerial application of pesticide over any city in the state of North Dakota requires approval from the Department. The Chapter also says that approval will only be given for “well-thought-out public health purposes,” and/or “emergencies or potential emergencies.”

The Department gets requests every year, usually in April or May from cities (and military bases) who are anticipating high mosquito populations at some time in the approaching summer months. We also receive requests for cankerworm/tent caterpillar control. In addition to the spring applications, we receive more hastily prepared requests from entities wishing to aerially control pests (namely mosquitoes) at outdoor functions and events periodically throughout the summer and early fall.

Most requests for aerial spraying of mosquitoes are for relief from nuisance varieties of the pests. Spraying for adult mosquitoes without any planning for reduction of larval populations and breeding environments is mostly ineffective, and the negative impact of spraying can far outweigh the temporary relief which may be achieved. A public health threat from mosquitoes in North Dakota involves Western Equine Encephalitis (WEE) or the West Nile Virus (WNV). Outbreaks in WEE are tied to a significant shift in the mosquito population from the various nuisance varieties to a large population of *Culex tarsalis*, which is the disease carrier. In North Dakota this typically occurs very late in the mosquito season. It has also been observed earlier in the summer after warm weather flooding followed by extremely hot conditions. WNV is carried by a number of species, some of which were previously considered to be nuisance varieties. Some seasons saw an extremely rapid and somewhat unpredicted spread of WNV across the Nation. Should this continue, the State may declare an emergency relative to WNV in which case the need to seek approval for aerial application of pesticides would be waived.

Procedure for Approval:

Whether or not the Department deems an aerial application to be justified, most city administrators conclude that if they receive considerable public pressure to spray, then an emergency of sorts exists. The Department has established a policy of approving aerial application of pesticides under a set of conditions. The following procedure for approval should be used:

1. Establish whether the proposed application is aerial, and if it is, intended to occur over a populated area. Ground fogging or aerial applications over rural areas do not require approval from the Division of Air Quality; only certification and training from the State Ag Department and/or FAA and the State Aeronautics Board.
2. Spraying must be done by a certified aerial applicator. Certification is through the State Ag Department. Aerial sprayers must also be registered with the FAA and the State Aeronautics Commission.
3. Spraying must be done with ultra low velocity (ULV) spraying equipment. (Very few crop sprayers are so equipped.)
4. Only EPA registered pesticide may be used unless waived by a public health emergency declaration. Chemical pesticides are the most common for mosquitoes. Biological pesticides are common for cankerworms.
5. The applicant must establish a means for notifying the public of when the spraying is to take place, so that at-risk individuals can take precautions.
6. All spraying must be done in accordance with FAA guidelines and follow reasonable procedures to minimize negative environmental impacts. Considerations include, but are not limited to: time of day, day of week, ambient temperature, wind speed/direction and proximity to shorelines and other natural resources.
7. Upon review, the form is signed by Division of Air Quality personnel. A copy of the signed form is returned (mailed, faxed, or emailed) to the requesting party, which is usually the aerial applicator, and becomes the written approval required by NDAC 33.1-15-10.

ET:lc