The Importance of Agricultural Aviation

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I imagine the phrase "I believe in the future of agriculture…" was said by Eli Whitney in 1794 when he patented the cotton gin (Tiffany, History.com). The Wright Brothers did not even realize how they were contributing to agricultural industry at Kitty Hawk, North Carolina, in 1903 ("The Wright). John Chayton of New Zealand must have believed in the future of this industry when he spread seed with a hot air balloon ("The History"). The Green Revolution by Norman Borlaug helped the future of agriculture flourish beyond what many thought was possible (Ganzel). All of these inventors and innovators struggled for the better things we now enjoy, but could they have realized the immense impact they would together have on just one industry?

Agricultural aviation is an intense career for the thrill-seekers. I have heard from many spray pilots that teachers always told them they would never be paid to look out a window all day long, yet here they are looking out a window flying low at high speeds. This career creates many other jobs, such as chemical mixers and truckers, as well as benefiting the rest of the agriculture industry, environment preservation, and the public. The aerial application industry expands far from the land of center-pivots all the way to the remote forested areas only reachable by hiking trails.

Insecticides not only help control pests on crops and timber, but also control insects of medical importance and annoyance in human-populated and remote areas. Countless insects carry numerous pathogens and parasites that can be transmitted to humans and animals; probably

the most notorious disease-transmitting insect today is the mosquito which transmits Malaria, Zika Virus, Dengue Fever, filarial worms, and many other pathogens ("Information"). There are various chemicals that target different stages in insect life cycles without harming humans, animals, or the environment. Many times aerial application is "the only, or most economic, method for timely pesticide application" and can treat large, isolated areas faster than other forms of application ("Industry).

Many forest services use aerial application for various natural resource management activities, such as insect prevention and wildfire management ("Planes"). Year after year wildfires across the nation are seen on every news channel, but there never fails to be shots of firefighting planes included in the viral videos of devastation (Reim). Like I mentioned earlier, aerial application is not for the faint of heart; those who fly into danger while everyone else is being evacuated are heroes. The 1996 fictional movie *Independence Day* showed Russell Casse, a crop-duster, making a courageous sacrifice and helping save the world from aliens (Byrge). Even though this movie is complete fiction, it sparked interest about agricultural aviation in those who may have not grown up with yellow planes roaming the land.

All fiction aside, "aerial application is conducted in all 50 states" for seeding and applying chemicals to approximately 127 million acres of farmland annually (Moore, "Industry"). Along with speed, agriculture aviation can treat areas without causing runoff from soil compaction. Multiple studies have shown higher yields in fields treated by aerial application,

compared to fields with crop damage and loss from ground application ("Industry," Moore). This higher yield means less land utilized for agriculture and more land used in the preservation of wetland and forest habitats ("Industry").

The FFA Creed is lived out in the agricultural aviation industry. Past generations of agriculturalists created ways to better things for present and future generations involved in aerial application. I have seen the joys and discomforts of spray pilots, and I hold an experience that only 1,800 National Agricultural Aviation Association members and their communities are able to truly understand ("Industry"). There is an outstanding comradery and mutual respect between aerial applicators, as well as in the entire agricultural industry (Tiffany). Those yellow planes are symbol of where I grew up, how I was raised, and what I have learned. I cannot imagine a life without knowing agricultural aviation.

Works Cited

Byrge, Duanne. "'Independence Day': THR's 1996 Review." *The Hollywood Reporter.* https://www.hollywoodreporter.com/review/independence-day-1996-movie-original-905775.

Ganzel, Bill. "The Green Revolution – Agriculture to Prevent War." *Living History Farm.* 2007, https://livinghistoryfarm.org/farminginthe50s/crops_13.html.

History.com Editors. "Cotton Gin and Eli Whitney." *History.* 21 Aug. 2018, https://www.history.com/topics/inventions/cotton-gin-and-eli-whitney.

"Industry Facts." *NAAA.* https://www.agaviation.org/industryfacts.

"Information on Aerial Spraying." *Centers for Control and Disease Prevention.* 5 Oct. 2018, https://www.cdc.gov/zika/vector/aerial-spraying.html.

Moore, Andrew. "Aerial Application's Important Service to Agriculture." *NAAA.* 25 Aug. 2015, https://www.naehss.org/PastSchools/2015/KeynoteAddress.pdf.

"Planes." *U.S Forest Service.* https://www.fs.fed.us/managing-land/fire/planes.

Reim, Garrett. "Aircraft Fight California's Wildfires." *Aviation International News.* 22 Jan. 2018, https://www.ainonline.com/aviation-news/business-aviation/2018-01-22/aircraft-fight-californias-wildfires.

"The History of the Agriculture Plane." *Covington Aircraft.* 13 Dec. 2011, http://blog.covingtonaircraft.com/2011/12/13/agriculture-plane/.

"The Wright Brothers." *Smithsonian National Air and Space Museum.* https://airandspace.si.edu/exhibitions/wright-brothers/online/.

Tiffany, E.M.. "The FFA Creed." https://www.ffa.org/about/ffa-creed/.