

## What is the Future of Agricultural Aviation? By Seth Ackerman

I feel that the future of agricultural aviation will be critical to the future success in the agricultural economy across the globe. We live in a society that has become captivated by the expansion of technology. If we look back on the last ten years alone, the rate of which technology has expanded is shocking and very impressive indeed. Agricultural technology is by no means an exception to this topic. There are many more tasks that could be accomplished now and in the future by using aviation. Aerial application is establishing itself as a very big factor in today's agricultural economy. There are many other areas in agriculture that could be expanded by the use of aviation, such as food aid delivery. Not only does it help improve crop production in agriculture but it helps to combat wildfires or field fires. Another more obvious advantage is the jobs aerial agricultural continues to produce.

First, as most people know, aerial application is much faster than the traditional ground rigs used for applying chemicals. An airplane or helicopter can accomplish more in one hour than a ground rig could in an entire day. With the time saved farmers could do any number of jobs or repairs because they won't have to spend their time in the field. By using aerial application the farmer can be sure that they are able to apply the chemicals at the proper time, and thus raise the yield of their crops. This is very important especially with the world population rate continually growing. With the population growing, farmland is either staying the same or decreasing. If farmland is decreasing then the best possible yields are crucial, and with aerial application, higher yields are guaranteed.

Also when a crop is too thick for a ground rig, an aerial applicator is very convenient. Another example would be when a field may be too muddy for a ground rig to get through and time is of the essence, aerial application once again becomes crucial. Not only does this ensure your crops survival and help reach its maximum potential; it also cuts down on soil compaction. Another advantage of aerial application is that it increases soil conservation by ninety percent. This is very important to farmers worldwide. Conserving soil can also play a pivotal role in the yield of a farmer's crop.

Yet another positive point on aerial application is that it is proven to be very safe. There are very strict rules and regulations as to when the chemical can be applied. There are also very extensive rules as to how it may be applied. All of these are to ensure the safety of everyone involved. Pollution is also reduced by a substantial amount using agricultural aviation. Not only is pollution cut down, but fuel is also reduced. This is a huge advantage that allows farmers to save money. By saving on fuel, farmers would be able to purchase other equipment or supplies that they may need.

However, the cost of aerial application is considered too high for many farmers to consider this option for most of their spraying needs. We need to find a way to lower the costs in order to gain the trusts of farmers, which is the most important step. Steps need to be taken in aerial application because naturally, more customers equal more profit. This would have a very positive effect on the agricultural business worldwide. So far, the agricultural industry has been doing a fine job of advancing technology in most areas in agriculture. This is great, but there needs to be more of a focus and expansion in the

aviation area. So far, a lot of improvements have been made in aerial application, but I truly believe the survival of the agricultural economy will depend on all parts of agricultural aviation, not just aerial application. I think that aerial application is the building block for agricultural aviation's success.

Another positive effect that stemmed from agricultural aviation is the use of airplanes to combat forest fires and also field fires. This newly developed method has already proven to be much more effective than ground vehicles at combating fires. It also is a much safer method of combating fires.

As aerial agriculture continues to grow so do the number of jobs that it produces. These jobs are fairly secure because the technology will not just die off. This makes for a much more secure and profitable agricultural economy.

I also have this theory that one day, maybe not in the near future necessarily, but one day, aerial methods of irrigation will replace the irrigation sprinklers that are used today. I believe, with the proper research, that planes will be able to distribute the water more accurately and quickly than the irrigation devices used today. Also, I think that if a method was discovered by being more accurate, then more water could be conserved, which is also crucial to the global economy. This is just one of the many possibilities that are yet to be explored with aerial aviation.

By continuing the expansion of technology, the possibilities of agricultural aviation would be endless. One of the most important projects that should be considered is how we provide food aid to other nations. Agricultural aviation needs to play a much bigger role in this particular area. By using aviation to transport food the time the food took to arrive would be cut down immensely. If we can develop a system that would transport food in a short time span and could reach exact locations we would be able to help more countries because of the time and money that would be saved. The US Army and a few other organizations have been good about developing a system for transporting food and supplies to troops by using aviation. I think agricultural businesses could develop a system similar to those that have already been established. Of course, there will have to be modifications made, but in the long run these will pay huge dividends. The agricultural business will be even further appreciated and also more productive.

As I have stated before, I really think that aerial agricultural is critical to the overall agricultural economy. In turn, the agricultural economy ensures the survival of the global economy. Therefore, without the agricultural economy, the global economy would basically collapse. So, if aerial agriculture fails, I believe it would devastate not only the agricultural economy but the global economy as well.

