**From:** em.aero.0.4f83f5.98ccb054@editorialmanager.com <em.aero.0.4f83f5.98ccb054@editorialmanager.com> on behalf of Aerobiologia (AERO) <em@editorialmanager.com>  
**Sent:** Monday, November 28, 2016 5:35 AM  
**To:** junming wang  
**Subject:** Your Submission AERO-D-16-00073

CC: bv1gasoc@uco.es, aerobiologia@uco.es, regula.gehrig@meteoswiss.ch, huanghaiyan.usa@gmail.com, emmy\_qi@163.com, xiangzhen2009@gmail.com, nealstewart@utkk.edu  
  
Dear Dr. wang:  
  
We have received the reports from our advisors on your manuscript, "Atmospheric seed emission, dispersion, and deposition from horseweed  (Conyza canadensis)".    
  
With regret, I must inform you that, based on the advice received, the Editor-in-Chief has decided that your manuscript cannot be accepted for publication in Aerobiologia.  
  
You are kindly requested to also check the website for possible reviewer attachment(s).  
  
I would like to thank you very much for forwarding your manuscript to us for consideration and wish you every success in finding an alternative place of publication.  
  
Best regards,  
CARMEN GALÁN, Ph.D.    
Editor in Chief  
Aerobiologia  
  
  
COMMENTS TO THE AUTHOR:  
  
  
  
  
  
   
  
  
  
  
Reviewer 1: The paper describes a field experiment regarding the production and dispersal of the seeds of horseweed. The paper is well and clearly written and the experiment is understandably described.  
The seed transport distance is an important parameter defining the gene flow between different locations and depends on the meteorological conditions at the time when the seeds are released. Thus it is important to study the dependence of the source strength and seed transport on the meteorological conditions.   
The results of the analysis follow well the reasonable expectations. For instance, the observed dispersion distance is close to what one would expect considering the gravitational settling speed of the seeds. Also the dependencies on the meteorological conditions well confirm with the common sense expectations.  
The study does not give the final answer regarding the maximal transport distances due to small collection area of the deposition slides, pointing out the need for future modelling studies.   
Although no surprising new findings are made, I support the publishing of the manuscript, as it quantifies the dependencies and provides important input to the future modelling studies.   
  
Minor comments:  
line 59-62 -  please clarify the sentence   
Figure 4 is difficult to read due to too many overlapping data points near the origin. The authors could consider using logarithmic scales or plotting separately the data from the fixed columns and balloons.  
Figure 5 - The green line (power law fit?) is not explained in the caption. It does not seem to fit well the observations at the lowest levels. Maybe a different dependence should be considered.  
Please correct the table captions - the captions say "Number in the parenthesis is p value", table entries have "\*" and "NS".  
  
  
  
Reviewer 2: Review of manuscript AERO-D-16-00073 "Atmospheric seed emission, dispersion, and deposition from horseweed (Conyza Canadensis)" by Huang H., Qi M., Li X. Stewart C.N., Wang J.  
  
This paper presents experimental results on the emission, dispersion and deposition of seeds from a horseweed field. This topic is interesting since large-scale dispersion of glyphosate-resistant horseweed has been reported in several places. Using balloons and performing field measurements at distances up to 1000 m downwind from the source field allows the authors to consider large-scale dispersion. The subject is quite adequate to Aerobiologia.  
  
This paper on horseweed seed dispersal follows a companion paper on horseweed pollen dispersal (Huang et al. 2015, published in Ecology and Evolution). All data used in these two papers have been collected at the same experimental site, during the same period. A priori, this is a good idea, since most previous studies have been devoted either to pollen dispersal or to seed dispersal, but not both. However I think that in the present case this generates two problems.   
  
(1)     The two papers have been written in an identical way, with very similar outlines, descriptions, analyses and discussions. It turns out that entire sections of the pollen paper have been merely copied to the present paper (with "pollen grains" being replaced by "seeds"). See for instance the present section 2.5: it is a carbon copy of the section entitled "Data processing of horizontal flux and source strength" in the first paper. This is called "self-plagiarism" and is considered completely unacceptable by deontological standards. The whole manuscript should be revised to remove all forms of such text replicates.  
  
(2)     Considering the existence of the pollen paper published in 2015, is there a real interest in publishing such a similar paper on seeds? It is very surprising that the present paper only refers to the pollen one for the description of experimental details. I think it would be much more interesting to publish the seed data along with a comparison of the pollen data. In the present paper only very short remarks (two lines each time) do provide a comparison between pollen and seed dispersal (lines 298-299, 345-346, and 354-355). In a proper new paper on seeds the authors would insist on the similarities and differences between these two biological aerosols emitted from the same experimental field. This would provide much richer information than here, where seed data are presented in an independent way from the pollen ones.  
  
On top of this I do not agree with the way the authors have interpreted some of their results. My main concerns are as follows.  
  
(1)     Section 3.2. I do not agree with the interpretation that concentration follows a negative power function with height: in Figure 5 the most important pattern, i.e. the sharp concentration changes with height, occurs in the first layers of the atmosphere, where the fitted function completely misses the experimental variation. Another function should be considered.   
  
(2)     Section 3.3. Same thing as for Figure 5: the interpretation that deposition varies as a "negative power exponential curve" is not correct either I think. The overall curvature of the data points is completely missed, and the function systematically underestimates deposition up to, say, 200 m, and overestimates it beyond. Here again a better function should be considered.  
  
At this stage, I therefore think that this paper is not suitable for publication. Should the authors later submit a new manuscript on this topic, a few more detailed comments should be considered as follows.  
  
L 186-189. What do the authors mean by "obvious"? I don't agree that there is a "peak", with "low" values in the morning and the late afternoon. There are just smooth changes with a maximum around 14.  
  
Section 3.2.   
(1)     Figure 4 is difficult to read and does not show obvious patterns at all. There should be better ways to show that concentration decreases with distance and height.  
(2)     What do the authors mean by "source concentration"? This is an ambiguous expression, which is repeated several times. Do they mean "air concentration at the mean source height"? The last two paragraphs should be rewritten.  
  
Sections 3.4.2 and 3.4.3.   
(1)     The expression "seed vertical transport" is too vague and does not explicitly refer to a precise definition that uses the variables considered here. The authors should define precisely, and justify, how they quantify "seed vertical transport".  
(2)     Further, the expression "seed horizontal transport" has the same problem. It seems to be defined as the ratio CE1/C3. Why is that? What is the meaning of a variable that is the ratio of the edge concentration at 1m high to the source plot concentration at 3m? With this variable there is a mixture between horizontal and vertical transport. More generally speaking all the CEi/Cj variables do not have a clear meaning; and if they do have a meaning, the authors should provide a careful explanation (see Table 2).    
(3)     L 255-257. It is said that weak vertical wind transports more seeds to longer distances, but this seems to contradict what is said elsewhere, i.e., the presence of seeds at high altitudes (80-100m) (which requires large enough vertical velocity) makes long-distance transport possible.