

Reply

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We thank Drs. Hicks and Everett for their comments. Our response follows:

1. We are pleased to learn that Hicks and Everett share our views about K_H being different from K_W when H and LE are of opposite sign.

2. Hicks and Everett's point that part of the observed difference between K_H and K_W is due to a difference in the displacement heights for air temperature and humidity profiles may be valid. We have also speculated about these differences and feel that more detailed measurements are needed to define the locations of sources and sinks for heat and vapor with vegetated canopies. We hope the 100 sheep per square kilometer which Hicks and Everett refer to were not all milling about the instruments when the definitive studies were made.

3. As indicated in our paper we do agree with Hicks and Everett that under conditions of sensible heat advection the conventional Bowen ratio method gives questionable results. We also questioned the applicability of Richardson number as a suitable measure of atmospheric stability in these conditions.

4. We further agree with Hicks and Everett that attempts to relate K_H/K_W to $\Delta T/\Delta e$ and $LE/(R_n+S)$ may be misleading because of a possible autocorrelation. However, the primary objective of our paper has been to demonstrate (we think convincingly) a distinct lack of equality between K_H and K_W under conditions of sensible heat advection. More work needs to be done to establish a functional dependence of K_H/K_W on a suitable controlling parameter.

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