



Sources of imbalance in the surface energy budget during EBEX-2000

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During the EBEX field experiment, all components of the surface energy balance were carefully measured over a flood-irrigated cotton field in the San Joaquin Valley in California. The observed fluxes balance during the night, however rather large differences – up to 20% of net radiation – are seen during the day. Here, we investigate several causes for this apparent imbalance, including vertical flux divergence of sensible and latent heat caused by horizontal advection. We also discuss the effect on the energy budget of irrigation.