Both Leaf Area Index (LAI) and Shelter Index (fs) input variables can alter the calculation of ET using the Penman-Monteith Equation. They are both related to transpiration from plants, as well as conductance of a canopy, and the impact from changes in this cover and ET related to the canopy can impact evaporative processes and overall estimation of ET. Leaf Area Index is how a vegetated area is classified based on the idea of a "big leaf" whose vapor pressure conductance is approximately equivalent to that from a surface covered in leaves. The reflectance of leaves based on albedo impacts net radiation due to surface fluxes, which impacts overall ET in the Penman-Monteith equation. It is also a factor in the calculation of canopy conductance. LAI and ET have a linear relationship, as a high value of LAI (6.0 for forest) corresponds with an increase it ET as more leaves intercept more water, and in turn there is a slight increase in transpiration. LAI is also a key factor in calculating canopy conductance, along with fs. The shelter factor accounts for leaves that are not directly exposed to sunlight and wind, and thus do not transpire at such high rates. Therefore, LAI and fs have an inverse relationship. The last important variable in calculating canopy conductance is the leaf conductance (C leaf) which is a function of incident solar radiation, vapor pressure deficit due to humidity deficit, leaf temperature as a function of air temperature, and leaf water content as a function of soil moisture deficit. An overall increase in canopy conductance (C can) would lead to an overall increase in ET due to more area covered by vegetation, hence increased stomata openings and thus higher rates of transpiration. As seen in the penman-monteith equation, ET and C can are linearly related, and shelter index, LAI and leaf conductance, all play a role in calculating C can. The plots to describe this relationship are shown in the handwritten portion of question 2.