MINIMAL MARTIAN OXYGEN NEEDED FOR SEED GERMINATION. Carl W. Vermeulen, Chy B. Brown, Joshua W. Burton, Mary T. Tomlinson, Ncholas S. Turner & Kendris K. White. Camp Community College. For the transfer of agriculture to Mars, which has no atmospheric oxygen, we need to know the minimum needed by plants in all phases of its life cycle. Seed germination has long been known to need oxygen. We have found that minimum to be about 5.6 mM. This means that Martian greenhouses should best contain pure oxygen at a minimum pressure of ~2 psi. The minimal needs for both oxygen and carbon dioxide by mature plants are yet to be determined. Author contact: Carl W. Vermeulen, ecoligist@yahoo.com