1156-92-183 **Pauline van den Driessche*** (pvdd@math.uvic.ca). *Age structured discrete time infectious disease models.*

A discrete time model that includes age structure is formulated for the spread of a disease. For a Ricker recruitment function, the population demographic dynamics may persist on a periodic k-cycle. When disease is introduced, an extension of the next generation matrix method is used to calculate the basic reproduction number $\mathcal{R}_0$ for disease spread. Numerical simulations for a model of infectious salmon anaemia virus causing significant mortality show that, for $\mathcal{R}_0 > 1$, the demographic dynamics do not in general drive the disease dynamics. (Received January 22, 2020)