1145-VF-2458   **D Brian Walton*** (`waltondb@jmu.edu`), James Madison University, MSC 1911, Roop Hall, 800 S Main St, Harrisonburg, VA 22807. *Maximizing asymptotic growth subject to random season durations.* Preliminary report.

Consider a population of plants that grow during a single season and produce seed at the end of the season. The longer a plant grows prior to going to seed, the more seeds it can produce but the greater the probability that the season ends before the seeds are released. Given a fecundity function that is increasing in time and a probability distribution for the timing of the end of the growth season, we optimize the asymptotic growth rate of the population with respect to the population's seed release strategy. In certain cases, the population will schedule gaps of time where no seeds should be released. (Received September 25, 2018)