

1154-39-1637 **Danielle L Burton*** (dburton3@utk.edu). *Optimal Control of Harvest Timing in a Discrete Model*. Preliminary report.

Management decisions regarding harvest are complicated and important. In the difference equation setting, many order of events cases have been studied. Hiromi Seno proposed a model to study the timing of harvest between breeding seasons by taking a convex combination of the order of events cases reproduce-harvest and harvest-reproduce. We derive a new model that mechanistically incorporates harvest timing and share some preliminary numerical results. (Received September 16, 2019)