

Default summary figure output

Figure 1. Examples of the time series generated by the yield loss model. When $a = 0$, the Z_t series is white noise. When $a = 0.5$ or $a = 0.9$, the Z_t series is lighter pink and darker pink noise. As a increases, the greater level of temporal autocorrelation produces a smoother series Z_t . In the no-yield-recovery model, the R_t series of ‘weather conduciveness to yield loss from pests or diseases’ (from equation 1) has 0 as a minimum value. The resulting cumulative yield loss series (from equation 2) also tend to be smoother for higher a . The examples shown here are for $m = 0$ and $\sigma^2 = 1$ in the no-yield-recovery model.

Figure 2. Percentage yield loss (smoothed) for different values of a and m for the ‘no-yield-recovery’ model for 10 time steps (generations). When $a = 0$, there is no temporal correlation, and temporal correlation increases with increasing a . When m is low, weather conduciveness to disease development is low.

Figure 3. Proportion incorrect decisions based on two different decision rules about use of mid-season management. When $a = 0$, there is no temporal correlation, and temporal correlation increases with increasing a . When m is low, mean weather conduciveness to disease development is low. Circles indicate performance of decision-making based on current information through the fifth of ten generations; squares indicate performance of decision-making based on past information from three previous years. Filled symbols indicate false negative decisions, such that management was not applied when it would have increased profit. Open symbols indicate false positive decisions, such that management was applied when it decreased profit.