

Figure 1: *Assigning jobs to unemployed bees. Scouts and foragers are possible.*

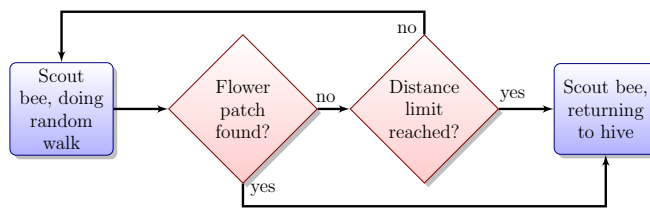


Figure 2: *Scouting behaviour until a flower patch is found or the maximum distance is reached.*

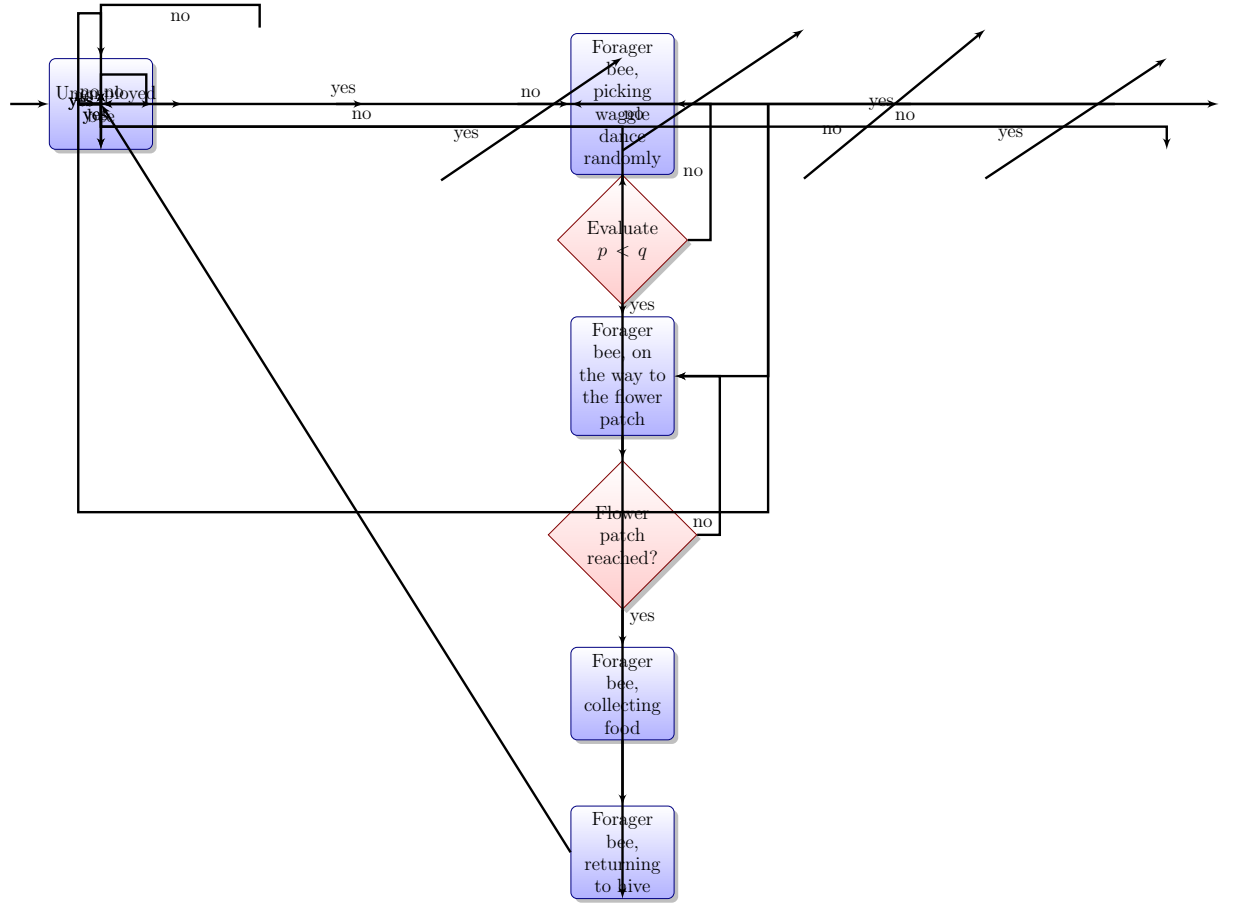


Figure 3: *State transitions of the bees in the environmental simulation.*

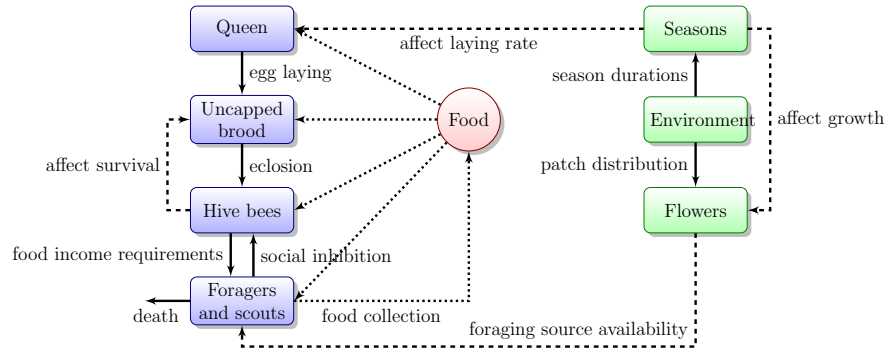


Figure 4: *Honey bee social dynamics and environmental influences covered by our advanced model.*