We present a semi-implicit scheme for the solution of a PDE that describes the anisotropic propagation of forest fires in heterogeneous landscapes. The goal is to use the scheme to understand the effect of small scales perturbations on the propagation of the front at large scales. One approach is to use the scheme to numerically homogenize the small scale perturbations. Another approach is to generate burn probability maps obtained from large ensembles of realizations for the front arrival time when perturbing the data.