

Our Scenario for the final project is a farmer that is trying to harvest enough corn from his fields. The farmer lives on a planet where the growing season is 1000 days because of its distance from the sun. Each farmer on this planet needs to harvest a minimum of 50 pieces of corn each growing season in order to survive the non-growing season. The farmer only has 10 corn seeds at the beginning of the growing season. These seeds are planted in a 2 by 5 blocks within the farmer's field. This is because the corn on the planet can only expand to another plot of soil when there are 2 adjacent planted corn plots. This allows for the corn to grow outwards at a fast pace to help reach the harvest goal. Once the corn has been planted into a plot of soil the fertility of the soil decreases as the corn uses up all of its nutrients to keep it alive. A plot of land with corn planted will die if the fertility becomes insufficient for the corn but if there is no corn in a plot of soil the fertility will increase until the plot of soil is fully back to life or corn has been planted into that plot of soil. While fertility is a major concern for the farmers there are a large number of tornadoes that tear through the land on this planet which destroy the corn crops that the farmer has planted. Each day in the growing season there is a chance that a tornado could blow through and destroy some of the corn that has been planted. Luckily for the farmer, the tornado does not affect the fertility rate of his soil it just destroys his corn crop. If the farmer does not harvest 50 crops by the end of 1000 days or if all of the corn is killed off by tornadoes or unfertile land then it is game over.