

The horn fly is a blood-feeding pest of pastured cattle. Horn flies take 20-30 blood meals per day causing cattle to experience blood loss, annoyance, decreased milk production, reduced weight gains, changes in grazing patterns, and bunching of animals. Female horn flies deposit eggs in fresh cow manure. Propose a solution to decrease or eliminate the threat of horn flies to cattle.

Harvesting lettuce is no easy job. Workers bend over all day long to cut the heads of lettuce out of the fields. The work is hard, and it is difficult to find workers to do the job. When there aren't enough workers, the lettuce rots in the fields. Propose a solution to the lettuce worker labor shortage.

Feral pigs (wild hogs) sniff out and destroy valuable crops like rice, sorghum, wheat, corn, and melons. The pigs tear up farm fields, contaminate water supplies, and are a disease risk to humans, livestock, and other wildlife. Propose a solution to decrease or eliminate the threat of wild hogs to farm fields.

Multiple years of low rainfall and high temperatures create drought conditions. During a drought, water use is restricted. This affects farmers who must irrigate their fields to get water to their crops. Propose a solution for growing crops during drought conditions.