- **What is Emerald Ash Borer (EAB)?**
  EAB is a small green insect that attacks and kills ash trees. The adults live on the outside of ash trees feeding on the leaves during the summer months. The larvae look similar to white grubs and feed on the living plant tissues (phloem and cambium) underneath the bark of ash trees. The trees are killed by the tunneling activity of the larvae under the tree's bark, which disrupts the flow of water and nutrients.

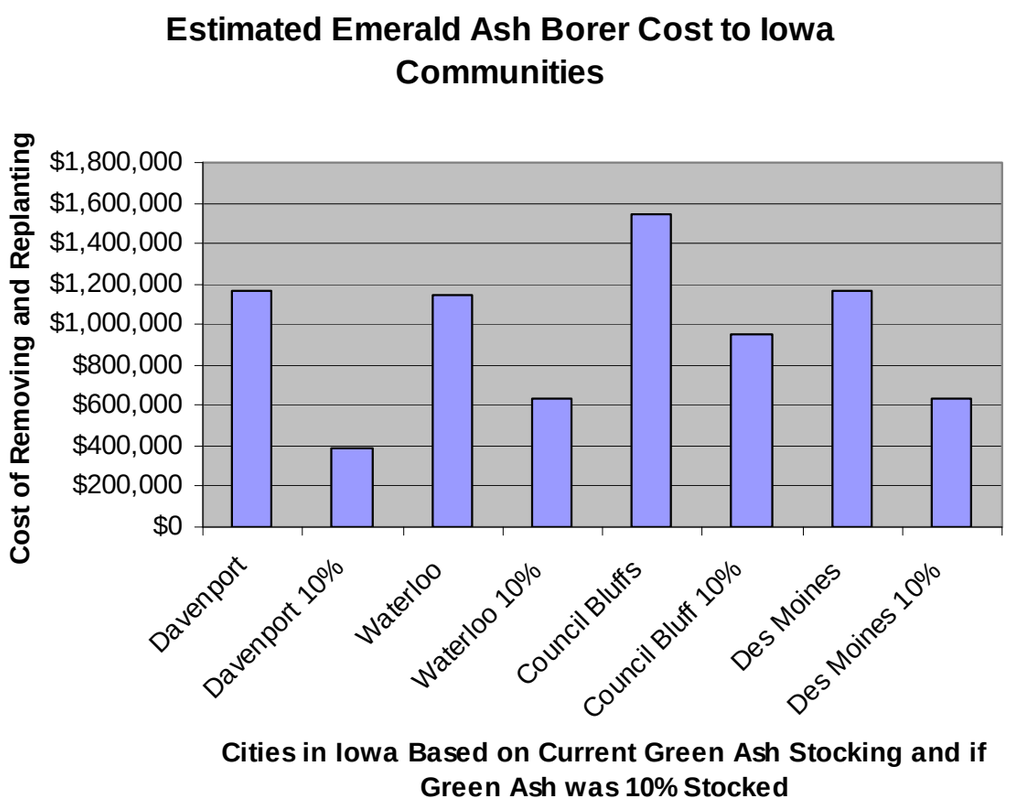
- **Where is EAB?**
  EAB is native to eastern Asia but has been found in Illinois, Indiana, Maryland, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin, and Ontario Canada. No one knows exactly when it was introduced to the United States, however many scientist feel that EAB may have been introduced as early 1990. After its introduction, EAB has spread by natural flight, in ash firewood, nursery stock, and other ash materials.

- **Why should I care about EAB?**
  All ash trees are susceptible to EAB damage and millions of ash trees have already been killed in infested areas. Early inventory data indicates that there are 50 million rural ash trees and 30 million urban ash trees in Iowa. The cost of removing and replacing a single tree can range from hundreds to thousands of dollars. Take a moment to think about how many ash trees are in your yard, neighborhood, community, and woodlands. Then imagine those areas without ash trees.

- **When will EAB reach Iowa?**
  No one knows. EAB has **not** yet been found in Iowa but most experts believe that it will inevitably be here. In other states, EAB has been present for a number of years before building to detectable levels. EAB is currently 1.5 miles north from New Albin, IA along the Iowa/Minnesota border.

- **What could have been done to help protect Iowa's woodland and community forests?**
  A healthy woodland and community forest would have many different tree species that create diversity. Ideally, no single tree species would make up more than 10% of the forest population to help limit the impacts from diseases and insects. Sadly, ash trees are over planted in Iowa's communities

- **What are the potential financial costs?**
  The University of Purdue developed an EAB Cost Calculator that allows cities to enter the number of ash trees by trunk size to better determine a realistic cost of removing the trees and grinding out the stumps. In addition, it allows each city to calculate the replacement cost ($150/tree). The graph below shows the estimated financial cost to remove ash trees and replant new trees in four different communities in Iowa. In addition, the graph shows what the cost would be if the communities were properly diversified to ensure that green ash did not comprise more than 10% of the community trees. The cost of removing and replanting were developed using Purdue's cost calculator.



- **What do I learn from this graph?**
  The total estimated cost to remove the green ash trees and replant new trees in Davenport, Waterloo, Council Bluffs, and Des Moines is $5,017,878.00. With proper management, the cost would be $2,612,775.00 if the community forest were properly diversified to ensure that green ash did not make up more than 10% of the total population. Basically, proper tree diversity would have saved the four communities 52%.

- **Anything else?**
  The graph above only details the cost of removing and replanting city street trees. It does not include the cost to the private landowners who would have to remove the ash on their property. At this time, we do not have a way to estimate the cost to homeowners.

- **What should we do now?**
  Now is the time to start reducing the number of ash trees in your community before EAB arrives in Iowa. Logically, this process would start by removing the ash trees that are already in poor health, and then start removing the rest as the budget allows. However, we must be certain to maintain tree species diversity to help prevent a similar situation in the future. It is extremely important for communities to develop a street tee inventory to determine what ash trees they can afford to remove now, and what species should be replanted maintain diversity.