Due to a rising world population, scientists must develop new techniques to produce more food. One of these techniques, transgenics, has been around for over two decades however has not been improved at the rate required to keep up with food demands. In this work, transgenic technologies in maize are improved through a variety of approaches. First, the techniques themselves are improved by examining industry sector patents to find improvements discovered there. Secondly, a new set of recombinase proteins are tested for activity in maize cells. These new proteins, once proven as active in maize cells, are then used to demonstrate the ability to insert transgenes at targeted locations. Lastly, a large vector is constructed that could be used to insert transgenes at locations outside of the main genome. Taken together, this work makes multiple improvements to transgenic technology is maize.