

## The Apple Factory (continued)

The petals have served their purpose of attracting bees. Now they wither and fall off as does the rest of the flower. Only the ovary grows. At first it looks like a little swollen bit of stem below the withered flower parts. Then it becomes bigger and rounder, like a little green ball with withered flower parts at one end.

Now more leaves appear on the trees. The small apples need food to keep growing, and it's the apple factory's job to supply that food. The leaves take in carbon dioxide gas from the air. Water and minerals are shipped up from the roots through the trunk to the leaves. There everything is combined with sunlight to make sugars for the growing apples and for the tree. About forty leaves are needed to make enough food for one apple to grow.

Sometimes, if there are too many apples on the tree—if the factory is overloaded—some green apples will drop off. It's an automatic safety system to ensure that the apples that stay will be well fed. By the end of the summer, the apples are almost full size.

While all this work has been going on upstairs in the factory—the part where you see the apples growing—the basement floors have not been idle. The roots also have been working. They must supply food from the soil. So they keep spreading, searching for food. They spread underground as far or even a little farther than the outermost leaves reach above the ground.

Apparently, from basement to top floor, from roots to top branches, the apple factory is working well. The apples are growing bigger and bigger. Finally, during the clear, crisp autumn days, they begin to turn red and sweet.

But that's when we came in, isn't it? Our tour is over. In those clear, crisp autumn days the apple factory is in full swing, and the apples are turning red and sweet. This fall, pick an apple and look at it. See the papery little things opposite the stem? They're the sepals that protected the flower parts last spring. The stamens and styles are gone. You're holding a package that's been especially made by the apple factory to hold apple seeds. And what a delicious package it is! Take a bite; apples are good for you.

Have you ever heard of packages that you can eat? Here they are, straight from the apple factory. Clean, mess, no pollution, no work, no waste. What an amazing factory!

As a teacher, as you read this story, I'm sure you can see the myriad of teachable moments in this one adventure. Diligence, cooperation, planning and fortitude are all things our students need to be successful in school and in life. No wonder students use an apple as a symbol to bring to the teacher. They are looking for a life lesson. Let's make sure we give them what they want and need. Let us here at Ag in the Classroom help you do that in the coming school year.