

CASE study – The badly planted aspens

Four aspens were planted in August 2007 by a landscaping firm. They were in containers and planted just as they came from the container. The root flare appeared to be properly set at ground level. Watering was adequate.

By June 2008 all 4 trees were dead. Removed from the ground the roots bore the shape of the container they came in. None of the roots extended out into the soil.



This photo shows the root mass. Roots that circled the container wall are clearly visible.

Washing off the soil revealing several things - there is a mass of small roots about 2 inches thick above the main root system. This generally occurs when the normal roots are unable to develop properly. Although it initially appeared that the root flare was at ground level, it was actually 2" lower. There was a large mass of small roots at the bottom which also were circling around where they had been contained by the container.

As more soil was washed off it is clear that there is a smaller tangle of roots indicating the tree was previously in a smaller container. These are tightly bound and tangled in a very small volume.



The evidence suggests that these trees were containerized for sale when they were smaller. They became root bound and then moved to a larger container and more soil added. Even if they had been planted from the smaller container the tree would likely have failed because they were so tangled that they were unhealthy.

Moving the trees to a larger container and adding soil placed the root flare below the soil level. Now the roots made a weak attempt to fill the larger container. When the trees were planted, the circling roots were not moved out into the new hole and never established a healthy root system. Even if the trees survived the first year or two the roots would likely have failed in a few years.

The circling roots of these trees were so obvious that these trees should never have been planted. At the very least the roots needed to be spread out into the hole. The best choice would have been to investigate the roots and return the trees to the grower as unacceptable.