There are two goals to keep in mind when turning a compost windrow. The first is to move material from the outside of the pile to the middle, where it can decompose more quickly. The second goal is to loosen and fluff the material, so it will be more porous, and air can move freely. Specialized windrow turners are designed to accomplish both goals. A front-end loader can do the job as well, as illustrated below. First flip the top of the windrow over just beyond the existing windrow. Second, take the compost from the bottom of the old windrow and place it on top of the new windrow. Let the compost cascade out of the loader, to keep it as loose as possible.

Turning frequency should normally be based on temperature, and should occur whenever temperatures exceed to 140° F, or drop below 90° F (see Temperature Fact Sheet). If the compost is staying in this range on its own, regular tuning can accelerate decomposition by mixing the material and exposing new surface. Leaves may only need to be turned a few times a year but will benefit from turning as often as every two weeks. On the other hand, grass clippings, even when properly mixed with leaves,
may initially need turning once or twice a day. As decomposition proceeds and the compost becomes more stable, frequent turning becomes less important.

If the compost has become anaerobic and smells, turning will temporarily add oxygen but may also stink up the neighborhood. Schedule compost turnings to minimize any negative impacts by considering such factors as wind direction, when people are home, and whether they are likely to be outside or have their windows open. Before turning, try to determine the root of the problem, such as too large a pile, too much water, or too much nitrogen. Remedial action can then be taken as the compost is being turned.