1 Listen to your lawn

Although most lawns don't, in the normal course of events, provide an afternoon concert, yours can! Imagine being able to plug a set of headphones into your backyard lawn and being treated to your favorite music. It's just the thing for your next yard party. If nothing else, it should make an excellent conversation piece.

All you need is a high-level audio output from your tuner/amplifier. Although you may be able to drive your lawn directly from the tuner/amplifier output, you'd be safer using a buffer amplifier, such as the LM386 circuit shown. The stakes used to connect the amplifier to the lawn can be just about any metal rods you have handy. Copper lightening rods are ideal.

The audio signal impressed in the lawn will be located between the stakes, as shown. So, position the stakes at opposite ends of the lawn.

To tune in on the lawn, you'll need a set of monaural headphones, such as the Radio Shack 279-200, and a high-gain preamplifier such as our 741 circuit. All you have to do then is drive a pair of pickup stakes into the lawn. The volume depends a great deal on the location of the stakes.

Generally, the farther apart they are, the louder the sound. However, since the soil conductivity varies from place to place, moving one stake just a few inches can make an appreciable difference.

Overall performance depends on many factors including the gain of the headphone preamp, the distance between the stakes at the input and the output end, ground conductivity, background noise, and the alignment between the two sets of stakes.

Because of the many variables, this project is ideal for an experimenter interested in conducting a science project, perhaps as part of school work.