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# Soil Sampling Procedures

Representative soil samples must be taken to ensure accurate valuation of nutrients for submission to IRS for a section 180 deduction. Please follow Land and Leaf Data Labs (LLDL) protocols to collect soil samples for analysis.

## 1 Blocking Parcels

- Submit to LLDL legal descriptions and parcel maps for all land being evaluated. Please note on the maps any factors that may influence where the samples are collected (low lying wet spots, feed lot locations, etc.).
- Block parcel into 8 acre sections, making sure the soil and environmental conditions are consistent within the block.

## 2 Sampling Individual Block

- For each 8 acre block within a parcel, 1 composite soil sample will be analyzed. A composite soil sample consists of a minimum of 5 soil cores (see 3. Soil Sample Collection).
- When selecting locations to sample within a block, a “W” pattern or “X” pattern is frequently used. The “X” pattern is used for square or round shaped blocks, while the “W” pattern is used for more rectangular or elongated shapes (Figure 1.). Variations of these patterns may be used with irregular shaped blocks. The intent is to take samples that are representative of each block.
- If crops are growing on the field, avoid areas with stunted or sickly plants or areas where plants are extremely vigorous compared to the rest of the block. If the location to follow the “W” or “X” pattern falls in an area that is not representative of the block, use an area close by within the block.

Figure 1. The shape of block is not important so long as the sites and soils are similar. Select locations to give the best representation of soils within the block.



## 3 Soil Sample Collection

- Soil cores should be pulled from a minimum of 5 locations at 6 inch (15 cm) depth. Combine the 5 core samples from within the 8 acre block and mix thoroughly, removing roots, rocks, and other debris (approximately 1-2 cups (250-500 cc)).
- Place the mixed soil sample in a heavy paper or sealable plastic bag (quart size works well). Air drying the soil at room temperature can reduce shipping costs. DO NOT place soils in a heated oven to dry.

## 4 Labeling and Shipping

- Label each bag with a Sample Description Code assigned by LLDL. The label should be durable and hold up if the label becomes moist or wet from the soil during shipping.
- Ship the soil samples by an economy method (3-day FedEx, UPS, or USPS ground) to the LLDL designated laboratory. Soil samples can be heavy, so package them in sturdy boxes.

## 5 Sample Submittal Form

- Enclose the *Sample Submittal Form* provided by LLDL with each box sent to the laboratory. Please place form in a sealable plastic bag to protect from moisture. Keep a copy for your records.