



## **Expanded Center Point Pattern**

### **BOUNDARY AND GRID SIZE**

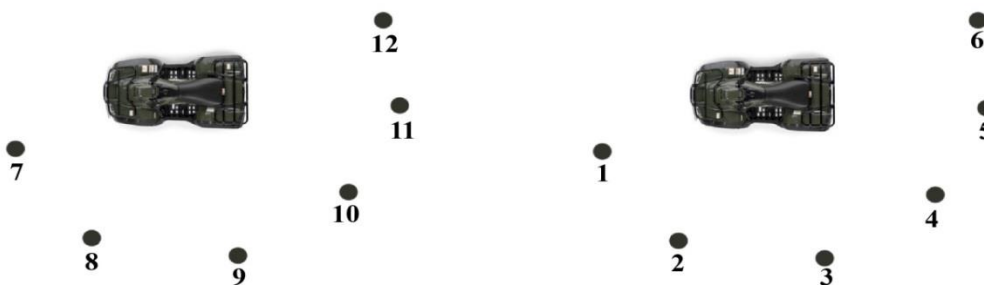
Many fields today already have well defined field boundaries used to set a grid sample pattern. SV can easily outline an exterior and interior boundary if a new boundary is needed. Once the boundaries are determined an *equal distance* grid pattern is laid out by the SV Soil Sampler. This equal distance pattern provides a much cleaner and evenly spaced sample pattern. Grid points that fall on or near interior boundary are moved for quality of the pattern. The 2.5 acre pattern is the most common but the 1.1 acre pattern is becoming more popular.

### **NUMBER OF CORES PER SAMPLE**

The number of cores taken is extremely important to maximize the accuracy of results. University research has shown taking a minimum of 9-10 cores provides the most reliable soil analysis. SV Soil Samplers take 10-12 cores per sample with all cores combined to comprise one sample. The sample area is recorded with its GPS coordinates for future sampling, commonly every 2-4 years.

### **SPREAD OF CORES**

Nutrients can “spike” considerably in locations in a field, sometimes within a few yards. To minimize such potential, SV spreads its cores over an area approximately 20 feet wide by 40 to 50 feet long. The sampler stops at the center of the grid, taking 5-6 cores the advances 20-30’ taking an additional 5-6 cores, completing the sample. This is called the expanded center point method seen below.



### **Expanded Center Point Grid Sampling Method**

In the fall of 1997 MISS collected a large number of soil samples using four different grid sampling patterns (center point, random unaligned, composite within the grid and the expanded center point method). The samples were sent to the University of Minnesota which did a thorough analysis of each pattern. The expanded point method used by MISS showed the most consistent repeatable results, a must in site-specific soil management.