

Iowa Soil Moisture Situation (Fall 2003)

The “driest” August in the recorded history contributed to totally depleted subsoil moisture in almost the entire state of Iowa. The subsoil moisture survey of November first showed that 80% of the state was on the dry side of usual. The subsoil capacity is about 10 inches of plant available water in the top 5 feet of soil. Over the years the soil moisture supply tends to average about 6 inches in the west and 8 in eastern Iowa. The survey found that many areas of the state had not expended the water in the bottom foot of the 5-foot profile. That means that crops failed to root to their typical depth in 2003. Shallow rooting occurs when soils in the spring are too cold or too wet for effective root growth, both were the case in portions of Iowa this past year. A shallow rooted crop does not do well when the summer turns very dry as occurred in 2003. Producers should note the precipitation received since November first and add 70% of the total to the subsoil moisture measured near them during the November first survey. If the amount is 7 inches or above the outlook for 2004 is favorable so far as fall soil moisture conditions are a concern.

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