In the 20th century, some farm organizations have evolved to include more separation of ownership and control, formality, and complexity. We examine propositions of existing theory on the effects to farm success and farm technical efficiency from agency costs in separated ownership and control farm production. Using Agricultural Resource Management Survey (ARMS) data, structural equation modeling and stochastic frontier analysis, we found evidence that separated ownership and control farms had greater farm success and were more likely to be technically efficient than combined ownership and control farms. Our empirical results did not identify agency costs in separation of ownership and control farming as an absolute limiting factor in farm organization evolution. We suggest the inability to confirm propositions of existing farm organization theory may be a result to changes in farm organization in the 20th century that have increased the complexity of understanding farm performance, farm manager behavior, and agency costs.