

**Counterfeit Seeds, Labor Supply, and Economic Returns:
Experimental Evidence from Tanzania**

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Abstract

Low productivity in agriculture is a major determinant of poverty and food insecurity in Africa. One explanation for low productivity is the widespread presence of counterfeit inputs (lemon technologies), which causes uncertainty among farmers about the quality of seed they purchase on markets—eroding incentives for adoption. We ran a field experiment in Tanzania to study the impact of improved maize seeds in a context where we exogenously vary uncertainty about seed type. While improved seed positively affects harvests and profits among fully-informed farmers, these benefits are attenuated significantly when farmers are uncertain about the seed they receive. The main channel linking uncertainty to reduced economic performance is the re-allocation of labor—a complementary input. Lemon inputs shift both extensive and intensive margins inwards, and both contribute to increasing the yield gap.