



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.)

Barton A. Rode

Science Fair Use Only

J1627

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)

How Does the Age of Corn Seeds Affect Germination?

Division

Junior (6-8) **Senior (9-12)**

Preferred Category (See page 5 for descriptions.)

16 - Plant Biology

Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.)

Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

GOAL: The goal of my project is to determine if the age of corn seeds affects germination. I think that the older the seeds the less likely they are to germinate.

MATERIALS and METHODS: Corn seeds from seven different years were germinated in plastic cups and in the soil. Six seeds from each year were put in clear cups with black paper lining and wet cotton balls for moisture so that I could measure the length of the root and stem daily. Six seeds from each year were also planted in soil and watered. I recorded how many seeds sprouted from each year.

RESULTS: I found out that seeds from the four most recent years germinated in the soil and in the cups. Most of the seeds older than 1996 didn't germinate. The 2001, 2000, and 1999 seeds grew longer roots and stems on average and grew faster than the 1996 seeds.

CONCLUSION: The results I got in my first experiment and again in a duplication of the experiment support my hypothesis. I learned that you should throw away old corn seeds because the old seeds seldom germinate. A farmer or a gardener should plant the newest corn seeds available.

Summary Statement (In one sentence, state what your project is about.)

In my project I planted corn seeds from 7 different years to find out if older seeds germinate as well as more recent seeds.

Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.

Parents corrected grammar and spelling in report, and developed photos.