held at room temperature for 30 minutes and removed for counting. Germinated grains were defined as those with intact tubes at least one grain diameter in length.

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5. Germination of sh2 pollen grains.

Using the medium described above, we have surveyed several genotypes among our stocks. We first noticed in 1963 a coded entry that consistently demonstrated higher % germination than the control (sul) or its allelic stock. Repeated analysis in 1964 of material grown in the field, the greenhouse or the growth room showed that our sh2 source stock surpassed significantly the germination of all other entries. Reciprocal crosses with several stocks have been prepared but not yet tested. The significance in this report resides not in the fact that our sh2 stock performs better (we have not demonstrated yet that the performance is a precise function of the sh2 locus) but that the possibility for differential pollen germination may be exploited.

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1. The metastable nature of paramutable R alleles.

Paramutable \underline{R} alleles of different geographic origins may be characterized by their differing \underline{Rrr} phenotypes in a common genetic background. These phenotypes form a continuous series with respect to degree of mottling, and range from forms lighter than characteristic for the standard allele commonly used in paramutation studies, to forms which are self-colored. However, this phenotype is not a suitable property for permanent