5,000 species of plants. The farm was willed to the University by the late Graham F. Blandy. It was put into operation as a biological laboratory in 1927 when Dr. O. E. White became the first director. There are working and living facilities for a number of graduate students, also two furnished apartments for guests and investigators. The staff, students and guests take their meals in a common dining room provided by the Farm. There are available a number of fellowships paying $1200 a year for the graduate students. Since the students spend at least half of the year at the Blandy Farm where the cost of living is merely the cost of food, or about $30 a month, the stipends of $1200 a year are adequate for living throughout the year. Fees and tuition are taken care of by the University for students on fellowships. At least two or three of these Fellowships will be open in the fall of 1957 and we would be pleased to have applications from anyone interested in doing genetic research, particularly with corn.

2. Blandy Radiation Field.

Beginning in the summer of 1957 there will be a Cobalt-60 radiation machine installed in a small circular field which is completely shielded by concrete wall and earth embankments. The radiation field is in some ways similar to the first radiation field established at the Brookhaven Laboratory with the difference mentioned that we are using concrete and soil for shielding instead of distance as is done at the Brookhaven Laboratory. Also this source will be considerably smaller, between 100 and 200 curies instead of the 1800 curie source in use at Brookhaven. It is not planned to grow plants for their entire life in the field at the Blandy Farm but rather grow them in pots or pails and move them in for a short radiation of fairly high intensity at different periods in the life of the plant. With a 200 curie source it would be possible to get around 3,000 r per day at a distance of 1 1/2 meters from the source. At 3 meters from the source the radiation will be 720 r per day which is sufficient for inducing changes in the growing corn plant. There are great differences in the sensitivity as the corn goes through the meiotic cycle. The short note to follow by Alan Caspar will give a few of the details of the difference observed. We will be happy to have investigators spend some time at the Blandy Farm and make use of the radiation facilities there. In future years it may be possible to make service irradiation for investigators, although for the present year we are not prepared to do this.

3. Plastic Tags for Labelling Hand Pollinated Ears of Corn.

In the 1955 edition of the Maize Genetics Cooperation News Letter we had a short item entitled "Hurricane Proof Tags." Our primary object in using the plastic tag there was so that the hurricanes could not obliterate the records on our hand pollinated ears. However, since that time we have found these tags most useful even when we do not have

hurricanes. They are especially useful in making mass pollinations where we have been testing mutation rates induced in radiated developing pollen. The tags are all stamped prior to pollination with the data which we wish on the tag. Stamping is done by a "Crown" stamping machine which has 12 bands each containing a complete alphabet and numbers so that any combination can be stamped onto the tag. The tags are 3 1/2 inches by 5/8 inch, large enough for at least 12 letters or figures. The ink used is waterproof since these tags must stay out in the weather. Tags have been exposed continuously to the weather since last summer and the ink has not faded at all. Where a number of pollinations are to be made from the pollen of a single plant the tags can be stamped and hung on the plant desired and they serve as a reminder of how many pollinations are to be made. When the tags are used up the pollinations are complete. They come in five different colors, red, yellow, blue, green and white. Different experiments can be labelled automatically with a different color which makes sorting of the ears at harvest time an easy chore. The plastic tags are wired onto the plant with copper wire. At harvest time a quick jerk cuts through the plastic tag leaving the tag free without the wire. These are then strapped onto the ears with a rubber band. We have been using rubber bands for fastening labels onto hand pollinated ears for about 20 years and they give good results and hardly ever is a band broken. One precaution in using bands on the plastic tags is not to wrap the rubber band too tightly as it might be cut by the plastic tag. The advantage of rubber bands in fastening the tags to the ear is that as the ear shrinks the band also shrinks and remains tight to the ear.

One of the biggest advantages of using prelabelled tags for hand pollinated ears is that it is not necessary to transfer any data from the tag used in the hand pollination which cuts down materially on the errors in labelling the hand pollinated ears. The plastic tags can be obtained from the National Band and Tag Company, Newport, Kentucky.

W. Ralph Singleton

4. Radiation Induced Pre-meiotic Mutation.

A series of experiments was started in 1953 and 1955 to determine the relative sensitivity of the various stages of maize microsporogenesis to gamma radiation. The results reported here are from the 1955 experiment in which plants homozygous dominant for the endosperm characters Su, Y, Sh, and Wx were placed in the Brookhaven gamma field for two day periods where they were radiated for 20 hours each day. The first group of plants was placed in the field 36 days before the pollen was shed. The first group was removed after 40 hours of gamma radiation given at the rate of 50 r per hour, and another group placed in the field. This was continued until the last group to go in the radiation field was shedding pollen when removed from the field. Pollen was collected from all the plants in the experiment on this day and placed on silks of a