

Selection of frog-eye disease resistance in tobacco (Nicotiana tabacum L.) was conducted by culturing tissue from stem, petiole and leave of variety Virginia Coker 347 on modified Murashige and Shoooge medium. Regenerated plants were tested with $40 \times 2.5 \times 10^5$ spores/100 ml. spore suspension of Cercospora nicotianae Ell & Ev. Results showed that 4 % of the rgenerated plants were resistant to these disease as compared with normal seedings. When the resistant plants were cultured and reinnoculated, 3.33 % remained resistant.

In other experiment, spore suspension with $30 \times 2.5 \times 10^5$ spores / 100 ml. was applied in the callus stage for selection, the percentage of survival and regeneration were 16 % and 3.25 % respectively. After planting and testing again with spore suspension, there were about 20 % resistant plants

Similar test was also conducted by using 2 % (2 g / 100 ml.) of the prepared fungal toxin instead of spore suspension. About 16 % of the callus survied of with 5.5 % regenerated into plants. If the fungal toxin concentration was increased to 4 % the percentages of survival and regeneration were decreased to 12 % and 3.5 %, respectively. The survived plants was planted and reinoculate with 40 % spore suspension. Regenerated plants from callus culture treated with 2 % and 4 % toxin could withstand the disease about 30 % and hight resistant about 5 %, respectively. The somatic cell of these consisted of the normal 48 chromosomes and no abberation was observed.