Effects of Low Dose γ -ray Irradiation on the Early Growth and Antioxidant Activity in *Raphanus sativus* L. Seeds

Eun Suk Jang¹, Ju Hong Il², Su Jung Kwon¹, Hee Ock Boo¹, Da Hwa Jung³, and Sook Young Lee^{1†}
¹Biology Research Center of Industrial Accelerators, Dongshin University, Naju 520-714,
²Department of Chemical Engineering, ³Department of Oriental Medicinal Material, Dongshin University, Naju 520-714, Korea

방사선 조사가 무(Raphanus sativus L.) 종자의 초기생육과 항산화 활성에 미치는 효과

장은숙¹, 주홍일², 권수정¹, 부회옥¹, 정다화³, 이숙영^{1†} ¹동신대학교 산업용가속기이용생물연구센터, ²조선대학교 화학공학과, ³동신대학교 한약재산업학과

This study was to elucidate the effect of low dose y-ray irradiation on the germination and antioxidant activity in radish seeds. The germination rate of the new seed was remarkably stimulated by 4Gy irradiation group compared with the others. In the 1-year-old seed, the germination rate of irradiation group was much higher than that of the control. Especially, it was noticeable higher in 1Gy and 16Gy irradiation groups. Antioxidant activity was measured by DPPH(1,1-Diphenyl-2-picryl-Hydraxyl) method, effect of antioxidant activity on radish seeds extract were observed that 8Gy irradiation group was significantly increased to 20.23%, and 16Gy irradiation group was more decreased to 10.4% as compared to control, respectively.