



XA0201031



XA0201032

evaluation. The best mutant "17-5-83" appeared resistant and gave 44% higher yield than the parent, mutant "70-7-82" was found to be moderately resistant and gave a yield 21% higher than the parent. The yield increases seem to be connected with plant architecture changes.

(Contributed by M.L. Das and A. Rahman, Bangladesh Institute of Nuclear Agriculture, Mymensingh).

Mutation spectrum in peas following treatment with fast neutrons and NEH

Seeds of *Pisum* lines "Wt 3527" and "Wt 4042" were treated with 200 and 500 rad of N_f or 0.014 % NEH (8h, pH 4,5-5) or the combination of the two (irradiation followed by NEH treatment). Among 30 000 M_2 plants 1314 mutants were identified. N_f were the least effective in terms of number of mutants, but induced the widest spectrum, alone as well as in combination with NEH. A number of hitherto unknown mutant genes were identified after the combined treatment of the line "Wt 3527".

From: SWIECICKI, W.K. (Poznan Plant Breeders, Plant Experiment Station, Wiatrowo, Poland), Plant Breeding 98 (1987).

Induction of mutations in Japanese millet, *Echinochloa furmentacea* (Roxb.) Link

Seeds of cultivars "VL8" and "VL11" were treated with EMS, gamma rays and a combination of both mutagens. Chlorophyll mutation frequencies were as follows:

Treatment	VL 8	VL 11
15kR	6.0	9.6
15kR + 0.1% EMS	8.5	10.5
30kR	10.1	10.5
30kR + 0.1% EMS	9.8	9.0
0.1% EMS	6.6	8.6

From: MEHRA, H.S., JOSHI, H.C., CHIKARA, J., (Vivekananda Parvatiya Krishi Anusandhan Shala, Almora, Uttar Pradesh 263 601), Ind. J. Agric. Sci. 55 (1985) 294-295.

Use of induced chlorophyll deficient mutants to identify "heterotic blocks" in pearl millet chromosomes

Chlorophyll deficient mutant stocks induced in "Tift 23" of pearl millet (*Pennisetum americanum* L. Leeke) were crossed with "Tift 23" and 5 other normal inbreds to study the effect of these deleterious recessive genes on yield. The difference between near-isogenic S_1 (F_2) populations homozygous or heterozygous for the chlorophyll deficiency was not significant. However among 69 S_1 progenies from crosses with other inbreds the heterozygotes were higher yielding than the homozygotes in 53 cases, 15 of which were significant. A mutant like "M5" identified a high yield "heterotic block" in "Inbred 104" and a very low yield "heterotic block" in "Inbred 186".

From: BURTON, G.W., (University of Georgia, College of Agriculture, Agronomy Department, Tifton, GA 31793). Crop Science 26 (1986) 537.



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