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coch and het are allelic[†]

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A mutant (SGR-"coch") with the "cochleata" (1, 2) phenotype was induced after seed treatment of our pea line SG with 7000 r of gamma-rays. Another mutant SGE-624 with the "heterophyllus" (3) phenotype was induced in the SG line following treatment with 0.15% EMS.

Three crosses for checking locus identities were made between Wiatrowo lines Wt11745 (*coch*) and Wt11304 (*het*) and Novosibirsk mutant lines SGR ("coch") and SGE-624 ("het"). The scheme of crosses is represented below:

 F_1 plants from cross Wt11745 (*coch*) x SGR ("coch") had the "cochleata" phenotype. In the other two crosses the phenotype of the F_1 plants was "heterophyllus".

According to the results of these identify tests, *coch* and *het* must be alleles of one locus *coch*, and allele *coch*^{het} is dominant over allele *coch*. The results in principle are in accordance with the linkage data of Swiecicki (3, 4) who localised the *het* mutant approximately in the *r-tl* region of chromosome 5, where locus *coch* is situated (2).

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- 1. Wellensiek, S.J. 1959. Euphytica 8:209-215.
- 2. Wellensiek, S.J. 1962. Genetica (Netherlands) 33:145-153.
- 3. Swiecicki, W.K. 1989. Pisum Newsl. 21:75-76.
- 4. Swiecicki, W.K. 1990. Pisum Newsl. 22:62-63.

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†Editor's note. Based on the results of a cross between Wt11745 (*coch*) and Wt11291 (type line for *het*), Apisitwanich, S. and Swiecicki, W.K. (unpublished) have also concluded that *coch* and *het* are alleles, with dominance of *coch*^{het} over *coch*.