

Changes of Germination Rate of Rice Seeds with Variable Status after 10-years of Storage Period

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The seeds of rice with variable status were examined the germination rate after 10 years of long-term storage (-18°C) conservation. For seeds of wild relatives, 2 accessions were examined and germination rate of all accessions showed no changed after freezing conservation. For seeds of native germplasm, 1,259 accessions were examined and germination rate of 696 accessions was increased or showed no change after 10 years of long-term storage. Germination rate of 432 accessions was decreased with below 15% of initial germination rate. For 79 accessions of native germplasm, germination rate of seeds was decreased with above 15% of initial germination rate after 10 years of long-term storage, which is needed to be rejuvenated. For seeds of developed varieties, 873 accessions were examined and germination rate of 486 accessions of developed varieties was increased or showed no change after 10 years of long-term storage. Germination rate of 251 accessions was decreased with below 15% of initial germination rate. For 25 accessions of developed varieties, germination rate of seeds was decreased with above 15% of initial germination rate after 10 years of long-term storage, which is needed to be rejuvenated. For seeds of developed line, 2,131 accessions were examined and germination rate of 1,245 accessions of developed line was increased or showed no change after 10 years of long-term storage. Germination rate of 588 accessions was decreased with below 15% of initial germination rate. For 96 accessions, germination rate of seeds was decreased with above 15% of initial germination rate, which is needed to be rejuvenated.

Key words: conservation, seed, germination rate, long-term storage

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