

**PHYSIOLOGICAL QUALITY OF RICE SEEDS STORED IN FREEZER FOR SEVEN YEARS**  
**KRÜGER, F.O.<sup>1\*</sup>; SILVA, M.G. <sup>2</sup>; VAZ, C.F.<sup>3</sup>; RIBEIRO, P.R.G.<sup>4</sup>; MARTINS, A.B.N.<sup>5</sup>; SANTOS, F.F.<sup>6</sup>; FRANCO, D.F.<sup>7</sup>; COSTA, C.J.<sup>8</sup>** (<sup>1</sup>PPGFV UFPel, Pelotas - RS, Brasil, [fabiolaoliveirakruger@gmail.com](mailto:fabiolaoliveirakruger@gmail.com)) (<sup>2</sup>Embrapa Clima Temperado, Pelotas - RS, Brasil) (<sup>3</sup>Embrapa Clima Temperado, Pelotas - RS, Brasil) (<sup>4</sup>Embrapa Clima Temperado, Pelotas - RS, Brasil) (<sup>5</sup>PPGFV UFPel, Pelotas - RS, Brasil) (<sup>6</sup>PPGFV UFPel, Pelotas - RS, Brasil) (<sup>7</sup>Embrapa Clima Temperado, Pelotas - RS, Brasil) (<sup>8</sup>Embrapa Clima Temperado, Pelotas - RS, Brasil)

Rice is the second most cultivated cereal in the world, occupying an approximate area of 158 million hectares, and Brazil is among the top ten countries worldwide producers. The seed quality is an utmost importance element to get the expected productivity and storage is a key step in the physiological seed quality maintenance. Thus, the study evaluated the seed germination of the irrigated rice cultivar BRS Querência stored in a freezer for seven years. The work was developed in the Official Laboratory of Seed Analysis of Temperate Climate Embrapa. The experiment used irrigated rice seeds from the 2005/2006 season, with 93% of germination power and 9.2% of water content. The seeds were stored in a freezer at -15 ° C for seven years. After this period, the seed water content, germination and germination first counts were determined. The results showed that the water content of seed rice cultivar BRS Querência decreased from 9.2% to 6.5%; this percentage is within the moisture levels suitable for rice seeds storage restricting the seeds respiratory rate and limiting the reserves consumption. 76% of normal seedlings were obtained in the first count of germination test. The storage conditions allowed the physiological seed quality preservation, which showed 91% germination. The conclusion is that the BRS Querencia cultivar rice seeds freezer storage for seven years preserves the seeds physiological quality.

Palavras-chave: *Oryza sativa L.*, suitable conditions, seed preservation