

# Historical Review of Transferring Dwarfing Genes in Wheat from Japan to Central Europe. (C01-borojevic083110-Poster)

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## Abstract:

In 1913, in Italy, Nazareno Strampelli crossed the Japanese wheat variety Akakomughi with (Wilhelmina Tarwe x Rieti) in order to shorten the straw and obtain resistance to lodging, as well as earliness. From this cross in 1918, the new variety Villa Glori was obtained. Strampelli crossed that variety with the variety Balilla (obtained from the cross Duro di Puglia x Akakomughi). From such a complex cross, Strampelli created the variety SAN PASTORE in 1931 (Strampelli, 1932). Much later, it was found that Akakomughi is the donor of height reducing gene Rht8 on 2D chromosome, and Ppd1 gene which brings forward flowering by 8 days, reduced height by 10 cm, and increasing spikelet fertility (Gale and Youssefian, 1985). In 1950s, San Pastore, and thirty others varieties carriers Rht and Ppd genes were imported from Italy to previous Yugoslavia. They were extensively used in crosses with winter wheat varieties. (Borojevic and Potocanac, 1966). Thanks to them high yielding winter wheat varieties carriers of Rht and Ppd genes were developed. These varieties significantly contributed to the increase of wheat production in 1970s and 1980s in the countries of previous Yugoslavia, Hungary, Slovakia, Czech Republic, Bulgaria, Romania and the neighboring countries. In most varieties of wheat in those countries, the Rht and Ppd genes in that time, came directly from Italian varieties, from Yugoslav varieties, or Russian, Bezostaja or Skorospelka which have Ardito in their genealogy carrier of Rht 8 gene too. Later Rht genes came from Mexican varieties to winter wheat varieties in Europe. Thank to Rht and Ppd genes, some of these countries from importer became exporter of wheat.

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