# Nitrogen Timing Effects on Milling and Baking Quality of Hard Red Spring Wheat. (S04-stark133042-Poster)

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## Abstract:

The production of high yielding, high protein hard red spring wheat in the Pacific Northwest typically involves applying part of the seasonal N requirement between tillering and flowering. In-season N applications have been effective in increasing grain protein content, but questions have arisen regarding the effects of late-season N applications on milling and baking characteristics. A three-year field study was conducted to determine relationships between grain protein content and milling and baking characteristics of hard red spring wheat topdressed at tillering, boot or flowering with either 0, 22 or 44 kg N/ha. N timing did not affect milling yield, loaf volume or mixing characteristics and had little effect on relationships between protein content and milling and baking performance. By comparison, topdressed N rate did affect most of the wheat quality characteristics evaluated in the study. Increasing the topdressed N rate increased flour protein and loaf volume, but tended to decrease kernel size and flour yield when plant N availability was high.

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