

포 스테 발표

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The method of bread-making with mulberry leave powder and the change of amino acids by fermentation of *S. cerevisiae* or bifidobacteria

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The present study examined optimal level of mulberry leave powder, and the method of bread-making were proposed to utilize mulberry leave powder by investigating rheological properties of dough and sensory evaluation of bread. The difference of amino acids compositions in flour brew were also investigated by fermentation of *S. cerevisiae* or bifidobacteria. As the % of mulberry leave powder increases absorption rate of dough was steadily increased, but stability and R/E ratio of dough were dramatically decreased more than 1% level respectively. R/E ratio value, which indicates gas retention property of dough, was not obtained at the level 5%. Gelatinization temperature and maximum viscosity temperature showed a tendency of decrease, resulting in easier cooking of dough. The delay of temperature caused by addition of mulberry leave powder was overcome by two step bread making, that is, modified straight dough method adding flour brew fermented 16hrs by bifidobacteria. The firmness of bread was progressively decreased as the amount of mulberry leave powder increased. The addition of 2% level of mulberry powder to bread showed no significant difference comparing with control in sensory evaluation. Amino acids compositions of Flour brew fermented by bifidobacteria was superior than that by *S. cerevisiae* nutritionally.