β-glucan is a polysaccharide that is classified as a soluble fiber. It can be obtained from different biological sources, though its content levels are highest in oats. The hydrolysis of β-(1→4,1→3) oat glucan using β-(1→3)-glucanase may be the best alternative for obtaining oligosaccharides, which may be involved in prebiotic and immunomodulatory activities, because these enzymes are specific and do not generate unfavorable by-products. In this study, β-(1→3) glucanase was produced from Trichoderma harzianum Rifai on solid-state fermentation in Erlenmeyer flasks and polypropylene sacks, both of which contained 3.0g of oat bran, 2.5mL of Vogel's salts, and 2.0mL of suspended fungus spores. The enzyme was extracted into 20mL of distilled water after 48 and 96 hours of cultivation. After 48 hours of cultivation, enzyme activity reached 3.63 U/mL in the Erlenmeyer and 1.74 U/mL in the polypropylene sacks. After 96 hours, these values reached 9.15 U/mL and 3.66 U/mL, respectively. The enzyme (6 U) obtained was used to hydrolysis of β-glucan of oat flour (0.1%) in 0.1-M sodium acetate buffer pH 4.5 at 35°C. Enzyme hydrolysis yielded a maximum value of 14.03% reducing sugars, which were released over 7 hours of reaction. These results show that there was more enzyme production after 96 hours of fermentation using the Erlenmeyer, and that 7 hours of hydrolysis was the best time to hydrolysis of β-glucan.