Abstract
Cellulases and hemicellulases are hydrolytic enzymes involved in the conversion of lignocellulose to glucose. Filamentous fungus *Trichoderma reesei* is one of the most known and efficient producers of cellulases and hemicellulases. These enzymes have a huge potential application in the bioconversion of agricultural wastes and production of valuable products that can be used later in different areas. Lignocellulose-degrading enzymes are induced by the presence in the cultivation medium of carbon sources such as cellulose, as well as other culture parameters such as pH, concentration of the inoculation material, nitrogen source used, etc. In this context, this study aims to investigate how different amino acids influence the activity of cellulases and hemicellulases in the fungus *Trichoderma reesei*. Therefore *T. reesei* QM-9414 was grown on medium in which the carbon source was replaced with 30 g / l wheat straw and nitrogen source with a 1 g / l various amino acids: alanine, glutamic acid, methionine, valine, asparagine, histidine and serine. Total cellulase activity, endoglucanase activity, ß-glucosidase and b-xylanase were assayed. The results demonstrate that these enzymes are stimulated by the presence in the culture medium of asparagine and glutamic acid and inhibited by the presence of methionine.

Key words: Trichoderma reesei, cellulase, xylanase, wheat straws