Abstract

The agricultural producers are constantly encountered with the high income risk that arising from the risk of price and product performance. One of the available tools to reduce the price risk is the use of futures markets and options. It is evident that offering a fair price for the option papers will be very important. So, in this study, after forming the hypothetical option market for the four strategic crops of wheat, barley, corn and rapeseed, the product options has been priced. To accomplish this aim, the two approaches of Black – Scholes model and binomial tree were used under the 9 scenario of exercise price at 5, 10, 15, 20% higher and 5, 10, 15, and 20% lower than current prices as well as equal to it. The results were shown that the canola has highest price uncertainty among the selected products. Therefore, option price of this product, is higher than others, and increasing the exercise price, under mentioned scenarios has had a greater impact on option price of this strategic corp.Barley has lowest price uncertainty, so it will has lower option price volatility compared to the other crops in response to change in the strategy of exercise price .The required data is related to years 2012- 2013 which has been obtained from statistical yearbook of 2012- 2013 and agriculture ministry and Iran mercantile exchange. These models were run in Excel 2010 and Derivea gem 1.5 spaces.

Key Words: Futures markets, Option, Binomial tree, Option pricing