## **ABSTRACT**

Rice production, which is one of the indicators of food security, must really be considered to anticipate adequate supplies. Rice is a food commodity as rice producers have very high strategic value so special handling is needed in an effort to increase production yields. This research aims to analyze the role of farmer groups in increasing the production of lowland rice farming in Sei Nagalawan Village, Perbaungan District, Serdang Bedagai Regency and analyze the relationship between the role of farmer groups and the production of lowland rice farming in Sei Nagalawan Village, Perbaungan District, Serdang Bedagai Regency. This research method uses the Validity Test, Reliability Test, Likert Scale and Spearman Rank methods. The role of farmer groups in Sei Nagalawan Village, Perbaungan District, Serdang Bedagai Regency is as a learning class, a vehicle for cooperation, and a production unit for farmers. The level of strength of the relationship (correlation) between the role of farmer groups in increasing the production of lowland rice farming shows that the results of testing the relationship between learning classes and production obtained a strength level value of 0.693, which states that there is a strong level of relationship. Testing the relationship between production units and production quantities obtained a strength level value of 0.663, which states that there is a strong relationship, and the relationship between collaboration vehicles and production quantities produces a relationship level of 0.768, which indicates that there is a strong relationship with a positive relationship direction. The significant value obtained is 0.000. If the sig value  $\leq 0.05$ , it can be concluded that there is a significant relationship between the role of farmer groups and lowland rice production.

Keywords: Farmer Groups, Roles, Paddy Fields, Farmers, Production