**CONCLUSION**

Study of the effect of natural carotenoid on body colration and growth of blue gourami(*Trichogaster trichopterus*) was conducted to improve the coloration and accelrate the market value of this Species , Whereas, blue gourami has a great importance for its aesthetic and market value, so it was interested to study on blue gourami fish. As a result, the experiment was done for four months. It was also emphasize the need for natural pigment coloring agents that serve as an alternative to synthetic chemicals in view of the worsening impact on the environment due to the use of synthetic pigments. As the aqua feed industry is looking for a natural, environmentally sustainable source of pigment to improve coloration and to increase commercial acceptability, there is a great deal of acceptance. There is a great potential for the use of natural plant-based carotenoids for pigmentation in aquaculture, as the aqua feed industry seeks a natural, environmentally friendly source of pigment to enhance coloration and to increase commercial acceptability. Analyzing result and discussion, author can conclude that carotenoid gain and growth rate was at satisfied level. Best result was found for T2(Marigold) treatment.Carotenoid gain level was highest in this treatment. On the other among carotenoid treatment highest growth was found also in T2 (Marigold) treatment.

**RECOMMENDATION AND FUTURE PERSPECTIVES**

According to this research work, the following recommendations may be done:

* Natural carotenoids may hold burning issues for feed industries to create noble products, such as feed supplements and will represent an interesting resource for the feed industry sector as synthetic color replacement.
* Natural carotenoids may be used in improving the total coloration and growth.
* Farmer will be enabled to produce low-cost feed using natural carotenoid as it is locally available and very cheap.
* As it is a pilot study, further studies may be conducted on similar field to make a concrete remark.
* Natural carotenoids may be play an important role in ornamental fish sector.