Abstract: This paper presents an alternative method for predicting biochar yields from binmass thermochem- ical processes.The obtained results e compared to those of other methuda, such as ANFIS using gradient descent, practical swarm optimiza tion, genetic algorithm, whale optimization algorithm, sine cosine algorithm, and LS-SVM.There fore, this paper avoids this limitation by using a hybrid method between the adaptive neum-fuzzy inference system (ANFIS) and gray wolf optimization (GWO) algorithm.The aim of the second experiment was to evaluate the performance of the pro- posed ANFIS-GWO method to predict hiochar yield from manure pyrolysis.Keywords: Gray wolf optimization (GW)), adaptive neum-fuzzy inference system (ANFIS), renewable energy production, biochar prediction.Several methods have heen presented to predict biochar, such as neural network (NN) and least square support vector machine (LS-SVM).The proposed method is called ANFIS-GWO, which consists of two stages.