INTELLIGENT PEARL DISEASE DIAGNOSIS BASED ON ROUGH SET - NEURAL NETWORK

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ABSTRACT—In view of large amount of monitoring data for Pearl disease, complexity of network structure of the traditional diagnostic neural network method, validity of disease data issues and slow training, this paper introduces the rough set theory to intelligent Pearl disease diagnosis. A method for disease diagnostics is proposed based on rough set - neural network. The rough set is used to remove the redundant attributes of decision table in order to reduce the number of input neurons and optimize neural network topology. The experimental simulation shows that the proposed algorithm can effectively improve the diagnostic rate and diagnostic accuracy. The proposed algorithm is a new way of methods for the diagnosis aquaculture technology.

Key Words: Intelligent Disease Diagnosis; rough set; neural network; reduction; pearl