

ASSESSMENT OF RHODAMINE B CONTENT IN SHRIMP PASTE IN PATHEIN DISTRICT, AYEYARWADDY REGION

MYO TUN KYAW

M.B.,B.S

2016

ABSTRACT

With growing international trade and globalization, food safety has emerged as an important global issue. The rapid expansion of the application of food additives may render many health risks through adulterants, additives and contaminants. This study was done to assess Rodamine B content in shrimp paste in Pathein District, Ayeyarwaddy Region. Shrimp paste is one of the traditional foods in South East Asia including Myanmar. Now-a-day, non-permitted dyes are widely used in many food stuffs as well as in shrimp paste. In this cross sectional descriptive study, 101 shrimp paste samples were randomly collected from eleven markets in Pathein District. The collected samples were tested for Rhodamine B by rapid test kit at Ayeyarwaddy FDA and then followed by confirmatory test at Nay Pyi Taw FDA. Among 101 samples, only 29.7% was Rhodamine B positive by confirmatory test. Small markets had more positive rate in compare with big markets (p value = 0.002). Sensitivity of the test kit was 100%, specificity was 98.59%, positive predictive value and negative predictive value were 96.77% and 100% respectively. The efficiency of the test was 99.01%. There was excellent agreement between rapid test kit and confirmatory test ($Kappa=0.976$), so rapid test kit can be used as routine test method in further Post Market Surveillance (PMS) activities. According to in-depth interview, the producers explained that textile dye, Rhodamine B, was traditionally added in shrimp paste because of consumer preference and market demand. Dye is only for colour and has no effect on taste, odour and long-lasting. It is powder form and is sprayed on shrimp during grinding. All the producers and sellers did not know well about this dye, its side effects, long term consequence and they had misconception that dye in shrimp paste may not cause any diseases. Consumers had poor knowledge about it, so health education should be given to all producers, sellers and consumers. Health education alone is not efficient to become dye free shrimp paste, therefore law

enforcement must be followed. This study can give some clue for prioritization and setting up detail implementation plan to be dye (Rhodamine B) free shrimp paste market in Ayeyarwaddy Region and then towards the whole country.