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RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Quality of Liming Material Used in Aquaculture in Thailand

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Abstract: Samples of 45 brands of liming materials were obtained Thailand and analyzed for chemical and physical properties. Eight of 10 products sold as ground calcium carbonate (calcitic agricultural limestone) were properly identified by vendors and of high quality, that is, neutralizing value and fineness rating above 85%. Seven of 15 products sold as ground dolomite (dolomitic agricultural limestone) were properly identified, seven were ordinary pulverized limestone instead of dolomite, and one was lime. The seven dolomitic agricultural limestone samples were of high quality, that is, fineness ratings above 85% and neutralizing values above 95%. Only two of eight misidentified samples were of high quality. Only one of four products sold as marl had neutralizing value and efficiency rating above 85%, but all were properly identified. Five products sold as crushed seashell had been burned and should have been identified as lime. However, neutralizing values (72-103%) were 3 lower than those of good quality lime. All 13 samples sold as lime were properly identified, and eight were of good quality, that is, neutralizing value above 120% and fineness rating above 85%. The cost of liming materials ranged from US\$ 0.01 to 0.02 kg⁻¹ for marl and from US\$ 0.10 to 0.14 kg⁻¹ for lime. There was no relationship between product quality and cost. Fish and shrimp farmers in Thailand should insist that manufacturers and vendors of liming materials provide data on product composition.

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