

## DEVELOPMENT OF A READY-TO-USE CURRY PASTE, INCORPORATING A LOCAL CHILI VARIETY MICH HY1

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This study focuses on the development of a ready-to-use curry paste formulated with a local hybrid chili MICH HY1 aiming to enhance the utilization of local chili. Ripe red chili was dried using a heat pump dryer (45°C, 7 hr) to reduce moisture content (6.05±0.11%). Roasted curry powder was prepared by roasting (120-130°C, 10-15 min) dried raw materials while unroasted curry powder was prepared by grinding dried raw materials. All dry spices were ground using a disk mill and plate mill. The development process of curry paste was based on preliminary trials. Trials were conducted by changing the proportions of spices and the best was selected by sensory evaluations with a 5-point hedonic scale using 30 untrained panelists. The curry paste was made by combining both dry spice powders (roasted and unroasted chili, and curry powders) and fresh spices (onion, garlic, ginger, and curry leaves) with salt and palm oil. All dry spice powders and ground fresh ingredients were cooked at 120°C-140°C for about 5-10 minutes, filled into sterilized glass bottles and kept at ambient temperature (28±2°C). Proximate composition, free fatty acid content, pH, color, capsaicin content and microbial level of curry paste were analyzed. The water activity of curry paste was 0.68 and the product contained 15.89±0.05% moisture, 10.31±0.24% crude fiber, 0.10±0.25% crude protein, 47.75±0.29% crude fat, 24.41% carbohydrate, 44.47±1.49% non-volatile ether extract, and 1.49±1.12% acid insoluble ash. The chili powder prepared using MICH HY1 had higher capsaicin content (roasted 1162.96 ppm, unroasted 1398.72 ppm) compared to a market chili powder sample (879.09 ppm) and the developed curry paste (255.11 ppm). However, the product exceeded the safe microbial level within two weeks. In conclusion, sensorily accepted curry paste can be successfully formulated using local chili MICH HY1 and other ingredients. However, the product cannot be stored for an extended period without preservatives.

**Keywords:** Capsaicin, Chili powder, Local hybrid chili, Sensory evaluation