Customer: Kasetsart University, Faculty of Agro-Industry, Thailand
The Department of Product Development was established in the Faculty of Agro-Industry in 1980, in line with the government’s policy of upgrading agro-industries. A Bachelor’s degree in Agro-Industrial Product Development was first approved in 1984. The Product Development programs focus on product innovation, technology innovation, process development, quality assurance, marketing and business management. Organization function: Teaching and research. Scope of the research: Product development

Application: Crude extract preparation from plant materials
Preparation of plant extracts for antioxidant activity in food and non-food products.

Equipment: Rotavapor® R-200 and Rotavapor® R-3
Ground fresh plant sample was mixed with 95% ethanol (300 ml) in the dark at 25ºC for 4.5 h and shaken during the extraction time to ensure complete extraction. The extracts were filtered through Whatman No. 4 paper and centrifuged (15 min, 1500g). Ethanol was evaporated from the supernatants on a rotary evaporator at 50 mm Hg pressure and 50 ºC. The evaporated plant extracts were thick and viscous materials and were kept in air-tight amber bottles after flushing with nitrogen gas for 30 s and stored in freezer at 20 ºC until they were analyzed.

Benefit / Conclusion: Productivity!
The better control of the instrument will provide the high efficiency for evaporation of solvent from the crude extract.

“The product is easy to use. The equipment is very useful due to various applications for sample preparation or quality determination.”
Dr. Rungnaphar Pongsawatmanit, Associate Professor, Dept. of Product Development