The Solvent effectiveness on extraction process of seaweed pigment

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Abstrak

Eucheuma cottonii seaweed is a species of seaweed cultured in Ind
onesian waters, because its cultivation is relatively easy and inexpensive. It has a wide variety of colors from green to yellow green, gray, red and brown, indicating photosynthetic pigments, such as chlorophyll and carotenoids. An important factor in the effectiveness of pigment extraction is the choice of solvent. The correct type of solvent in the extraction method of specific natural materials is important so that a pigment with optimum quality that is also benefical to the society can be produced. The target of this
research is to obtain a high quality solvent type of carotenoid pigment. This research was conducted using a randomized
block design with three (3) replications involving two factors namely solvent type (4 levels: aceton, ethanol, petroleum benzene, hexan & petroleum benzene) and seaweed color (3 levels: brown, green and red). Research results indicated that each solvent reached a peak of maximal absorbance at λ 410-472 nm, namely carotenoids. The usage of acetone solvent gave the best pigment quality. Brown, green and red seaweed have pigment content of 1,28 mg/100 g; 0,98
mg/100 g; 1,35 mg/100 g and rendement of 6,24%; 4,85% and 6,65% respectively.