大学名	山形大学		
University	Yamagata University		
外国人研究者	タニチャヤ・プットミー		
Foreign Researcher	Thanidchaya Puthmee		
受入研究者	西澤　隆	職名	教授
Research Advisor	Takashi Nishizawa	Position	Professor
受入学部/研究科	山形大学農学部		
Faculty/Department	Faculty of Agriculture, Yamagata University		

＜外国人研究者プロフィール/Profile＞

国　籍	タイ王国
Nationality	Thailand
所属機関	ラジャマンガラエ科大学タワンオク校
Affiliation	Rajamangala University of Technology at Tawan-ok
現在の職名	講師
Position	Lecturer
研究期間	2015/07-01-2015/08/31
Period of Stay	2015/07-01-2015/08/31
専攻分野	園芸学
Major Field	Horticulture

Dr. Thanidchaya Puthmee

＜外国人研究者からの報告/Foreign Researcher Report＞

①研究課題　/　Theme of Research

Three experiments were conducted to prolong the storage life of lime fruit. 1. Effect of electrolyzed acid water on the development of physiological disorder and fungal disease of lime fruit during storage. 2. Effect of photocatalyst on skin discoloration of lime fruit during storage. 3. Comparison of various extraction methods on the antioxidant activity of lime peel.

②研究概要　/　Outline of Research

1.Effect of EW on the development of fungal disease and physiological disorder during storage was compared with sodium hypochlorite. 2.Lime fruit were put in boxes coated with PC, and the development of skin discoloration during storage was observed under different illuminants. 3.Lime peels were extracted by several methods under both hot and cold conditions and measured the antioxidant activities.

③研究成果　/　Results of Research

1.EW effectively reduced the development of fungal disease. 2. Fluorescent light promoted skin discoloration during storage. 3.Effect of extraction methods was small but the activity was largely influenced by the extraction temperature.

④今後の計画　/　Further Research Plan

1.Effect of EW on postharvest disease/disorder will be studied using other tropical fruits in Thailand. 2.Effects of illuminants and light intensities on the storage life of fruits under PC will be also investigated more. The results will be presented at an international postharvest symposium.

＜受入研究者からの報告/Research Advisor Report＞

①研究課題　/　Theme of Research

期間中ライムを用いて3つの実験を実施した．1．電解水が果実貯蔵中のライム果実における病害および生理障害発生に及ぼす影響．2．貯蔵中のライム果実の果皮変色に及ぼす光触媒の影響．3．異なる抽出方法がライム果皮の抗酸化活性に及ぼす影響．

②研究概要　/　Outline of Research

電解水および光触媒を用いた果実の貯蔵方法について，技術的指導を行った．また，果実の抗酸化活性測定方法並びに効果的な抽出方法についての研究指導を行った．

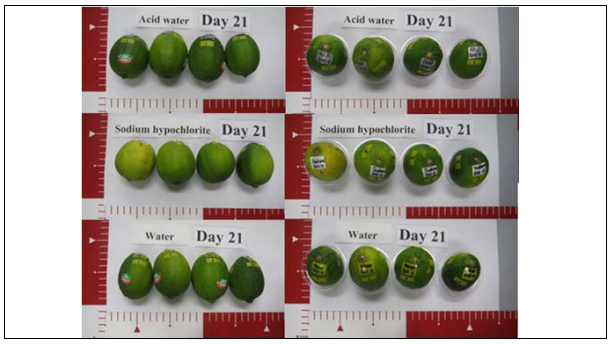
③研究成果　/　Results of Research

抗酸化活性の測定法並びに抗酸化活性を測定するための効果的な抽出方法を習得した．また，光触媒並びに電解酸性水を用いた果実の貯蔵方法と生理障害の測定方法について習得し，今後これらの習得した技術を用いて研究を発展させる目途がついた．

④今後の計画　/　Further Research Plan

2016年1月に現地の大学を訪問し，若手研究者や学生に対して実験指導を行う．また，今回の研究成果も踏まえて，国際学会で発表し，論文を投稿する予定である．

Measuremtn of antioxidant activities under the supervison of



Cooparison of lime fruits treated by electrolite acid water,