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• 計畫英文名稱	The Inhibiting Effect on Lipid Thermoxidation of the Natural Antioxidants from Meat Extract	
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• 英文關鍵字	Carnosine；Antioxidation；Thermal oxidation；Sensory evaluation；Lipid；Free radical	
• 中文摘要	<p>肌[月太](Carnosine)為肉類中含有之天然抗氧化劑。本計畫在一年期中，利用純油加熱及油炸馬鈴薯之模式探討 Carnosine 對油脂於油炸及加熱過程中之氧化情形。另外，以描述性食品官能品評，探討 Carnosine 對氧化氣味之抑制的影響。結果顯示 Carnosine 對於大豆油及清香油之油炸薯條過程中降低油脂 POV、共軛雙烯、TBARS 及揮發性物質 Heptanoic acid 有正面之作用。在對於官能品評的影響方面，加入 Carnosine 則可降低油脂氧化所產生的部分臭味，但過高劑量(400ppm)會促使不良之官能反應(如豆臭味)。在抑制油脂聚合物的生成上，Carnosine 之添加並無顯著的效果。由結果之，Carnosine 之添加對於抑制油脂氧化及其產物是有效用的，但添加過量則可能產生不良氣味。</p>	
• 英文摘要	<p>Carnosine is a natural antioxidant found in animal muscles. This reaserch studied the effect of carnosine on lipid oxidation during frying. A sensory evaluation was also conducted to understand if the addition of carnosine could prevent off flavoring during frying French fries. Our results showed that the addition of carnosine during frying process reduced POV, the formation of conjugated diene, TBARS, and some volatiles such as haptanoic acid in both soybean oil and hydrogenated oil. In sensory evaluation, samples with carnosine had lower fishy odor except the fried soybean oil with 400 ppm carnosine, which had highest beany odor. In conclusion, the addition of carnosine in frying process was considered to be a possible way in reducing lipid oxidation products. However, too much amount could produce off-flavor.</p>	