

## 저장/포장/유통

### P1-01

#### Evaluation of Storage Safety and Quality Characteristics of Wheat Under Different Packaging Conditions in Plasma Storage

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Jae-Yong Kim\*, Yea-Ji Kim, Ji-Yoon Cha, Jeong-Heon Kim, Min-Kyung Park, Seon-Min Oh,

Jae-Hwan Ahn, Yun-Sang Choi

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**Ga-Yang Lee\*, Min-Jeong Jung, Jong-Woong Nam, Jin Lee,  
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Mi-Ai Lee<sup>1</sup>

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Rye Gyeong Park<sup>1\*</sup>, Ji Hyeon Lee<sup>1</sup>, Soo Hyun Han<sup>1</sup>, Sang-Jae Lee<sup>1</sup>,  
Il Kwon Bae<sup>3</sup>, and Jae Hak Sohn<sup>1,2</sup>

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*Korea institute of fusion energy*

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**Kyoung-Sun Seo\***

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Dongsoo Choi<sup>1\*</sup>, Jinse Kim<sup>1</sup>, Yonghoon Kim<sup>1</sup>, Chunwan Park<sup>1</sup>, Hyun-Mo Jung<sup>2</sup>,  
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Minji Kim<sup>1,2</sup>, Dong Hyeon Park<sup>1</sup>, Min Jung Lee<sup>1</sup>, Sung Jin Park<sup>1</sup>,  
**Seung-Joo Lee<sup>2</sup>, Sung Hee Park<sup>1\*</sup>**

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**Yue Zhao<sup>1\*</sup>, Jiyeon Chun<sup>1</sup>**

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Jeong-min Heo<sup>1\*</sup>, Sug-jin Seo<sup>1</sup>, -min Kim<sup>1</sup>, JeonYong-hee Jung<sup>1</sup>, Yu-eun Jeong<sup>1</sup>,  
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## 가공/품질

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가공 식품 이미지 인식을 위한 AI 학습용 DB구축과 성능에 관한 연구

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Physicochemical Characteristics and Anti-inflammatory Potential of *Zophobas morio*  
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Haseong-Cho<sup>1\*</sup>, Ju-Hwi Park<sup>1</sup>, Ibukunoluwa Fola Olawuyi<sup>1</sup>, Ju-Ock Nam<sup>1,2</sup>, and Won young Lee<sup>1,2</sup>

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Comparison and characterization of hempseed protein isolate obtained different modified  
methods: structural, physicochemical and functional properties

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**Comparative Analysis of Baromi-2 (Powdered Rice) Gluten-free Bread Quality and Properties Enriched with Various Types of Fiber**

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**Development of Betacyanin-Infused Pectin-Based Intelligent Films from Pitaya Peel Extract with Titanium Dioxide Nanoparticles for Monitoring Fish Fillet Freshness**

**Huimin Du<sup>1</sup>, Nurul Saadah Said<sup>1</sup>, Ibukunoluwa Fola Olawuyi<sup>1</sup>, Won-Young Lee<sup>1,2\*</sup>**

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**Pectin/PLA Bilayer Films with Schiff Base Infusion: pH-Responsive Release of Bioactive Ingredients as Active Packaging in Fruit Preservation**

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**Effect of Fermented *Angelica keiskei* extract, Vitamin C, and Ultrasound Treatment on The Quality of Cured Pork Meat**

**Yea-Ji Kim<sup>1\*</sup>, Jeong Heon Kim<sup>1</sup>, Jae Hoon Lee<sup>1</sup>, Ji Yoon Cha<sup>1</sup>, Jae Hwan Ahn<sup>2</sup>,**

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**추출 방법별 갈색거저리(*Tenebrio molitor*) 기름의 이화학적 특성**

**임윤지\*, 최덕수, 김선암, 이유범, 오상아, 김지수, 이주영, 권혜영, 주경천**

*전남농업기술원 곤충잠업연구소*

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**유산균을 첨가한 발효화분빵의 기능성 분석**

**김선암\*, 최덕수, 이유범, 오상아, 김지수, 임윤지, 이주영, 권혜영, 주경천**

*전남농업기술원 곤충잠업연구소*

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**Comparison of biological activities of red sage(*salvia miltiorrhiza*) and *polygonatum sibiricum* from different extraction solvents.**

Jae Eun Park\*, Hyun-Ju Eom, Hye Jin Park, Hye Jeong Kang, Min-Ja Kim

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**Quality Characteristics and Antioxidant Activities of Sweet Potato Liqueur with Grapes Cultivated in Korea**

Hye Jin Park\*, Hyun-Ju Eom, Jae Eun Park, Nu Ri Gwon, Min-Ja Kim

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**Quality characteristics of paprika mixed jam with different types of sugar**

Hyun-Ju Eom\*, Hye Jin Park, Jae Eun Park, Hye Jeong Kang, Min-Ja Kim

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**Quality characteristics of paprika mixed jam with different types of 'cheong'**

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**The physicochemical characteristics of *nurungji* added with radish root juice**

Dieudonne Iradukunda<sup>1\*</sup>, Ga Yeon Yoon<sup>2</sup>, Yoon-Han Kang<sup>2,3</sup>, Dong-Jin Kwon<sup>2,3</sup>

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<sup>2</sup>Department of Marine Bio Food Science,

<sup>3</sup>East Coast Research Institute of Life Science,  
Gangneung-Wonju National University

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**국산 커피를 활용한 커피맥주 제조 공정 개발**

백세은<sup>1\*</sup>, 문세희<sup>1</sup>, 최현아<sup>1</sup>, 백다예<sup>1</sup>, 백지환<sup>1</sup>, 차상화<sup>2</sup>, 손동모<sup>2</sup>

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<sup>2</sup>마이크로맥스영농조합법인

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문세희<sup>1\*</sup>, 백세은<sup>1</sup>, 최현아<sup>1</sup>, 백다예<sup>1</sup>, 백지환<sup>1</sup>, 차상화<sup>2</sup>, 손동모<sup>2</sup>

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<sup>2</sup>마이크로맥스영농조합법인

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**Study on the quality characteristics and sensory evaluation of fermented milk added with fermented lactic acid bacteria extract of *Cordyceps militaris* derived from three types of edible insects**

Won Hee Lee<sup>1\*</sup>, Su Hwan Kim<sup>2</sup>, Eun Hye Kim<sup>1</sup>, Jun Seo Jang<sup>1</sup>, Hye Mi Jang<sup>3</sup>, Chang Ki Huh<sup>1,2</sup>

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<sup>2</sup>Research Institute of Food Industry, Suncheon National University

<sup>3</sup>Jangheung Research Institute for Mushroom Industry

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Sung Jin Park\*, Min Jung Lee, Dong Hyeon Park, Min Ji Kim, Ji Young Choi, Sung Hee Park

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**A Study on Extending the Shelf Life of *Kimbugak* through Improved Processes to Reduce Rancidity**

Hee-Jin Jo<sup>1</sup> \*, JiYeong Choi<sup>2</sup>, SoJeong Park<sup>2</sup>, Se-Young Cho<sup>3</sup>, Duwoon Kim<sup>1</sup> · <sup>2</sup> · <sup>3</sup>,

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**Effect of drying conditions on the functional compounds in *Paeonia lactiflora* Pall. roots**

Yonghyun Kim<sup>1</sup>, Hyun Ji Eo<sup>1</sup>, Chung Ryul Jung<sup>2</sup>, Uk Lee<sup>1\*</sup>

<sup>1</sup>Special Forest Resources Division, National Institute of Forest Science

<sup>2</sup>Forest Entomology and Pathology Division, National Institute of Forest Science

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**Improved Quality of Black Ginseng via Fermentation with Stevia**

Kwak Yeon-Ju<sup>1</sup>, Hwang Su-Byung<sup>1</sup>, Yang Jin-Ju<sup>1</sup>, Youn Geum-Joung\*

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**소스 제품에 적용 가능한 당류 및 칼로리 저감 감미료 조성물 개발**

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(주)우리식품

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**패션프루트 와인 제조를 위한 희석비율별 품질 특성 변화**

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<sup>3</sup>포도청와이너리

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**Han-Yeol Bang\***, Jun-Hyuk Choi, Song-Yi Woo, Ji-Hyun An, Gwang-Rok Yoon, Woo-Yong Bae

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**유영희<sup>1,2\*</sup>, 나영숙<sup>2</sup>, 김현진<sup>2</sup>, 허창기<sup>1</sup>**

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**Hyun-A An\***, Jeung-Hee Lee

*Department of Food and Nutrition, Daegu University, Korea*

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### **Determination of physiochemical characteristic differences in wheat *soju* mash fermented with N9 strain by different cultivar**

**In-Seo Hwang\***, Boram Kim, Chan-Woo Kim, Bo-Ra Lim, Ji Ho Choi

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### **Determination of physiochemical characteristic differences in wheat *soju* mash fermented with commercially available yeast by different cultivar**

**In-Seo Hwang\***, Boram Kim, Chan-Woo Kim, Bo-Ra Lim, Ji Ho Choi

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### **Quality characteristics of Korean traditional barley-based Nuruk according to grinding ratio and inoculation rates**

**Yejin Shin\***, Bora Lim, Chanwoo Kim, Ji-Ho Choi

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### **Quality characteristics of *makgeolli* added with *Humulus lupulus***

**Ji-Youn KIM\***, Bo-Ra Im, Ji-Ho Choi

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### **Vacuum-Assisted Low-Temperature Frying: Process Optimization for scallop snacks Production**

**Young Hyun An<sup>1\*</sup>, Jin Kim<sup>1</sup>, Ga Bin Lee<sup>1</sup>, Sun Young Park<sup>1</sup>, Hye Jeong Cho<sup>2</sup>, Jung-Suck Lee<sup>1</sup>**

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**A study on the 'use-by' date of *Gambas al ajillo* retort food with scallops**

Jin Kim<sup>1\*</sup>, Young Hyun An<sup>1</sup>, Ga Bin Lee<sup>1</sup>, Sun Young Park<sup>1</sup>, Ji-Hoon Park<sup>2</sup>, and Jung-Suck Lee<sup>1</sup>

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<sup>2</sup>Department of R&D, Daesang Food Plus

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**Changes in freshness of frozen mackerel (*Scomber japonicus*) with different packaging methods for refrigerated distribution over storage time**

Ga Bin Lee<sup>\*</sup>, Jin Kim, Young Hyun An, Sun Young Park, Eun Bi Jeon,  
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Department of Seafood Science and Technology/Institute of Marine Industry, Gyeongsang National University

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**식용곤충 소재별 탈지분말 및 유지추출물의 이화학적 특성 분석**

조영희\*, 강상국, 김성완, 박종우, 김성렬, 이지혜

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**Utilization of foam structured *Tenebrio molitor* larvae protein oleogels and their application as a solid fat replacer in sweet pan bread**

Chae Young Jung\*, and Imkyung Oh

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**Effects of oak mushroom (*Lentinula edodes*) and chickpea flour incorporation proportions on the physicochemical characteristics of plant-based meat analogues**

Bo Ra Lee\*, Ha Eun Lee, Imkyung Oh

Department of Food Science & Technology, Suncheon National University, Suncheon Korea

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**Development of protein-enriched fried snack with *Tenebrio molitor* powder**

Yujin Choi\*, Minsu Park, Imkyung Oh

Department of Food Science & Technology, Suncheon National University, Suncheon, Korea

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**딸기(설향)의 재배 환경(하우스 및 스마트팜)에 따른 품질특성 비교**

김해원<sup>1</sup>, 김은혜<sup>2</sup>, 허창기<sup>1,2,3\*</sup>

<sup>1</sup>순천대학교 스마트융합학부 스마트농업전공, <sup>2</sup>순천대학교 식품공학과, <sup>3</sup>순천대학교 식품산업연구소

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**일반하우스 재배와 스마트팜 재배 딸기(설향)의 저장 기간에 따른**

## 품질특성 비교

김해원<sup>1</sup>, 김은혜<sup>2</sup>, 허창기<sup>1,2,3\*</sup>

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### Quality characteristics of defatted soybean flour texturized vegetable protein according to the degree of mixing of isolated soybean protein

Sunyoung Jung<sup>1,\*</sup>, Misook Seo<sup>1</sup>, Seul Lee<sup>1</sup>, Boram Park<sup>1</sup>, Shinyoung Park<sup>1</sup>, Kyungmi Kim<sup>1</sup>, Chansoon Park<sup>1</sup>

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### Storage characteristics of defatted soybean flour texturized vegetable protein (TVP) with rice flour and pH adjusting agent

Mi Sook Seo<sup>1\*</sup>, Chan Soon Park<sup>1</sup>, Sun Young Jung<sup>1</sup>, Bo Ram Park<sup>1</sup>, Kyung Mi Kim and Shin Young Park<sup>1</sup>

<sup>1</sup>*Fermented & Processed Food Science Division, National Institute of Agricultural Sciences, RDA, Korea*

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### Development of a Color Model and Colorimetric Analysis of Different Rice Varieties Using Machine Vision

Dong-Gwan Shin<sup>1,2\*</sup>, Hoon Kim<sup>1</sup>, Hong-Sik Kim<sup>1</sup>, Jae-Woong Han<sup>2</sup>

<sup>1</sup>*Korea Food Research Institute*

<sup>2</sup>*Division of smart farm Engineering, Kongju National University*

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### Comparison of quality and flavor characteristics of imported, domestically produced, and developed brandy.

Jueun Lee\*, Bora Lim, Jiho Choi, Chanwoo Kim

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### Physicochemical and flavor characteristics of wine depending on persimmon varieties.

Jueun Lee\*, Youngmi Kim, Bora Lim, Jiho Choi, Chanwoo Kim

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### 가공 후 남은 매실 부산물의 식품 소재로서 활용성

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### Jack bean-based upcycled candies: roasting optimization and antioxidant analysis

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*<sup>2</sup>Department of FoodTech, Jeonbuk National University, Korea*

*<sup>3</sup>Green Road corp., Korea*

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**나주배를 활용한 젤리스틱형 숙취해소제 개발**

**김혜연\*, 정일겸, 신유정, 이현준**

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**Comparison of Physicochemical Properties of Wheat Flour and *Makgeolli* for Selecting Suitable Wheat Varieties for Brewing**

**Bo-Ram Kim\*, In-Seo Hwang, Chan-Woo Kim, Ji-Ho Choi**

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**Comparative Physicochemical and Sensory Properties of *Yakju* Made from Different Rice Varieties for Selecting Suitable for Brewing**

**Bo-Ram Kim<sup>1\*</sup>, Hyun-Ho Kang<sup>1,2</sup>, Chan-Woo Kim<sup>1</sup>, Ji-Eun Kang<sup>1</sup>, Ji-Ho Choi<sup>1</sup>**

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*<sup>2</sup>Department of World Brewing and Distilling, Daeyeung University, Korea*

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**Comparative analysis of Physicochemical and Sensory Characteristics for Selecting Suitable Rice Varieties for Distilled *Soju***

**Bo-Ram Kim<sup>1\*</sup>, Hyun-Ho Kang<sup>1,2</sup>, Chan-Woo Kim<sup>1</sup>, Ji-Eun Kang<sup>1</sup>, Ji-Ho Choi<sup>1</sup>**

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**Growth and volatile compounds of sweet basil from different cultivation conditions**

**Seoyoung Jeon<sup>1\*</sup>, Ahna kim<sup>2</sup>, Kihyun Kwon<sup>1,2</sup>**

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*<sup>2</sup>Research group of digital factory, Korea Food Research Institute*

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**Analysis of the growth and functional compounds of hydroponic sprout barley with different light conditions**

**Seoyoung Jeon<sup>1\*</sup>, Wooduck Seo<sup>3</sup>, Kihyun Kwon<sup>1,2</sup>**

*<sup>1</sup>Food safety and distribution research group, Korea Food Research Institute*

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*<sup>3</sup>Division of crop foundation, National institute of crop science (NICS), Rural Development Administration (RDA)*

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## Effect of different salt types on the fermentation of kimchi

Yun-Jeong Choi<sup>1\*</sup>, Hee Eun Kim<sup>1,2</sup>, Sung Hee Park<sup>1</sup>, Mi-Ai Lee<sup>1</sup>

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### Physicochemical Properties of Edible Insect Oil Affected by Drying Method

Ji Yoon Cha<sup>\*</sup>, Yea-ji Kim, Jeong Heon Kim, Tae-Kyung Kim, Yun-Sang Choi

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### 갯 시래기 건조조건에 따른 품질특성

이유석<sup>\*1</sup>, 이수현<sup>1</sup>, 이선경<sup>1</sup>, 김표현<sup>1</sup>, 강현주<sup>1</sup>, 마경철<sup>2</sup>, 고숙주<sup>1</sup>

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### Deep learning-based prediction of consumer preference for pre-packaged shrimp (Gambas) meal kits

Ui Jin Kim<sup>\*2</sup>, Bo Young Jeon<sup>2</sup>, Hyun Sub Kim<sup>2</sup>, Mi Jeong Kim<sup>12</sup>

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### 가루쌀 로스팅 조건에 따른 품질특성 및 가공적성 비교

이유석<sup>\*1</sup>, 이선경<sup>1</sup>, 이수현<sup>1</sup>, 김표현<sup>1</sup>, 김주현<sup>1</sup>, 마경철<sup>2</sup>, 고숙주<sup>1</sup>

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### 아린 맛 성분을 저감한 토란 반가공소재 비교

이선경<sup>\*1</sup>, 이유석<sup>1</sup>, 김표현<sup>1</sup>, 이수현<sup>1</sup>, 이세라<sup>1</sup>, 마경철<sup>2</sup>, 고숙주<sup>1</sup>

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### 수산물 단백질 활용 유자 음료의 첨가물에 따른 비린맛 저감 효과 비교

이선경<sup>\*</sup>, 이유석, 김표현, 이수현, 조한라, 고숙주

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### 양파 전처리 조건에 따른 양파당의 품질특성 및 주요 성분 비교

이선경<sup>\*1</sup>, 이유석<sup>1</sup>, 김표현<sup>1</sup>, 이수현<sup>1</sup>, 김주현<sup>1</sup>, 마경철<sup>2</sup>, 고숙주<sup>1</sup>

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건조 방법 및 온도에 따른 양배추 분말의 품질특성 변화

김표현\*, 이유석<sup>1</sup>, 이선경<sup>1</sup>, 지수현<sup>1</sup>, 이은실<sup>1</sup>, 마경철<sup>2</sup>, 고숙주<sup>1</sup>

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데치기 시간을 달리한 건 취, 곤드레의 복원 방법별 품질특성

김표현\*, 이유석, 이선경, 지수현, 신정엽, 고숙주

전라남도농업기술원 친환경농업연구소

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Changes of Antioxidant Activity and Lignan Contents in Schisandra Extract by enzymatic processing

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Development of novel sericin bigel beads for co-encapsulation of L-ascorbic acid and  $\beta$ -carotene: Evaluation of stability and *in-vitro* gastrointestinal release profile

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Upcycling Coffee Grounds in Extruded Snacks for Enhanced Functionality and Sustainability

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동물성 지방을 모방하기 위한 곤약 글루코만난, 알긴산나트륨 및 라드 기반 에멀션 겔의 개발

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서유민\*, 김지윤<sup>1</sup>, 김정수<sup>1</sup>, 성진수<sup>1</sup>, 김수현<sup>1</sup>, 임정호<sup>2</sup>, 문광덕<sup>1,3</sup>

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Seong Hun Oh<sup>1\*</sup>, Un Ha Mun<sup>2</sup>, Seung Hyun Bae<sup>3</sup>, Change Gyu Go<sup>3</sup>,

Gye Hwa Shin<sup>1</sup>

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<sup>2</sup>Sane Food,

<sup>3</sup>FOODPOLIS, Korea national food cluster

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**Soo Hyun Kim<sup>1\*</sup>, Jung Soo Kim<sup>1</sup>, Jiyeon Kim<sup>1</sup>, Kwang-Deog Moon<sup>1,2</sup>**

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**Chemical composition and physicochemical properties of dried laver (*Pyropia* spp.) in Korea**

**Jong Bong Lee\*, Suk Kyung Sohn, Ga Yeon Kwon, Hyo Rim Lee, Hyeong Jun Kim, Min Jae Kim, Ha Eun Park and Kil Bo Shim**

Department of Food Science and Technology, Pukyong National University

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**Jong Bong Lee\*, Suk Kyung Sohn, Ga Yeon Kwon, Hyo Rim Lee, Hyeong Jun Kim, Min Jae Kim, Ha Eun Park and Kil Bo Shim**

Department of Food Science and Technology, Pukyong National University

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**Physicochemical analysis and sensory evaluation of Chungtaejeon according to *Camellia sinensis* cultivars**

**Byung-Hyuk Kim\*, Yun-Suk Kwon, Ha Rim Hong, Eun Yong Song, Hyun-Hee Han, Doo-Gyung Moon**

Research Institute of Climate Change and Agriculture, NIHHS, RDA

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**Suk Kyung Sohn\*, Jong Bong Lee, Ga Yeon Kwon, Hyo Rim Lee, Hyeong Jun Kim, Min Jae Kim, Ha Eun Park and Kil Bo Shim**

Department of Food Science and Technology, Pukyong National University

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Neul-I Ha<sup>1</sup>, Seung-bin Im<sup>1</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>, Young-Woo Koh<sup>1</sup>, Hee-Gyeong Jeong<sup>1</sup>, Sang-Wook Jeong<sup>1</sup>, Min-Woong Kim<sup>1</sup>, and Kyoung-Sun Seo<sup>1\*</sup>

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Kyung-Je Kim<sup>1</sup>, Dong-Hyeon Lee<sup>1</sup>, Seong-Woo Jin<sup>1</sup>, Young-Woo Koh<sup>1</sup>, Seung-Bin Im<sup>1</sup>, Sang-Wook Jeong<sup>1</sup>, Neul-I Ha<sup>1</sup>, Hee-Gyeong Jeong<sup>1</sup>, Dong-Uk Kim<sup>1</sup>, Yu-Jin Choi<sup>2</sup>, Min-Gyeol Kim<sup>2</sup>, Kyoung-Sun Seo<sup>1\*</sup>

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<sup>2</sup>*Imsil Cheese & Food Research Institute*

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Young-Woo Koh<sup>1</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>, Seung-bin Im<sup>1</sup>, Sang-Wook Jung<sup>1</sup>, Neul-I Ha<sup>1</sup>, Hee-Gyeong Jeong<sup>1</sup>, Dong-Hyeon Lee<sup>1</sup>, Dong-Uk Kim<sup>1</sup>, Min-Woong Kim<sup>1</sup>, Ki-Man Kim<sup>2</sup> and Kyoung-Sun Seo<sup>\*</sup>

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<sup>2</sup>*Department of Health Functional Food, Gwangju University*

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Production a high solid concentration of microfibrillated cellulose derived from *Gellidium amansii* through introduction of fed-batch milling

Hye Jee Kang<sup>\*</sup>, Nur Istianah, Jeong Hwa Jang, Ju Hyun Min, Young Hoon Jung

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Yeon Ju Lee<sup>\*</sup>, Young Hoon Jung

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**Dong-Hyeon Lee, Dong-Uk Kim, Sang-Wook Jeong, and Kyoung-Sun Seo\***

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**Jiyeon Kim<sup>1\*</sup>, Jung Soo Kim<sup>1</sup>, Jinsu Sung<sup>1</sup>, Soo Hyun Kim<sup>1</sup>, Yu Min Seo<sup>1</sup>, Kwang-Deog Moon<sup>1,2</sup>**

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**Da-Sol Jeong<sup>1\*</sup>, So-Hee Park<sup>2</sup>, Yun-Seo Han<sup>3</sup>, Ga-Won Kim<sup>3</sup>,  
A-Jin Yoon<sup>4</sup>, Soo-Jung Kim<sup>5</sup>**

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**Minh Huy Tieu<sup>1</sup>, Johnson Olowoniyi<sup>1</sup>, Hye Kyung Moon<sup>2</sup>, Soo won Lee<sup>2</sup>, Jong kuk Kim<sup>1\*</sup>**

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**Jung Soo Kim<sup>1\*</sup>, Jiyeon Kim<sup>1</sup>, Soo Hyun Kim<sup>1</sup>, Jinsu Sung<sup>1</sup>, Kwang-Deog Moon<sup>1,2</sup>**

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**Hui-jin Lee<sup>1\*</sup>, Seo-Eun Park, Jiyeon Chun<sup>1,2</sup>**

**이희진<sup>1\*</sup>, 박서은, 천지연<sup>1,2</sup>**

<sup>1</sup>*Department of Food Science and Technology, Sunchon National University, Korea*

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Do-Kyung Kim<sup>1</sup>, Hyun-jung Ko<sup>1</sup>, Wha-young Choei<sup>1</sup>, and Kwontack Hwang<sup>1\*</sup>

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Danhui Kim\*, Jieon Kim, Yuni Noh, Wonju Kwak, Hyunjung Yun, Jae-Young Oh, Kwang-Soo Ha, Kajeong Lee

Department of Food Safety and Processing Research Division, National Institute of Fisheries Science, Korea

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최소영\*, 전수경, 임경란, 이종필  
경상북도농업기술원 생물자원연구소

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Seon-Jin Lee<sup>1,\*</sup>, Si-Hun Song<sup>1</sup>, You-Seok Lee<sup>2</sup>, Sun-Kyung Lee<sup>2</sup>, Pyo-Jueon Kim<sup>2</sup>, and Jeong-Yong Cho<sup>1</sup>

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<sup>2</sup>Environment-Friendly Agricultural Research Institute, Jeollanamdo Agricultural Research and Extension Services

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<sup>1</sup>전남대학교 융합식품바이오공학과, <sup>2</sup>목포수산식품지원센터

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Seo-Jin Lee<sup>1,\*</sup>, Ye-seon Won<sup>1</sup>, Yu-gin Park<sup>1</sup>, Heon-Woong Kim<sup>2</sup> and Jeong-Yong Cho<sup>1</sup>

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<sup>2</sup>Department of Agro-Food Resources, National Institute of Agricultural Sciences, Rural Development Administration

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**Ho-Chang Kim\*, Eun-Ju Cho, Jeung-Hee Lee**

*Department of Food and Nutrition, Daegu university, Korea*

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**Do-Woo Kim\*, Hyo-Hee Kim, So-Young Lim, Su-Yeon Choi, Jin Jeong,  
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*Health and Environment Research Institute of Gwangju Metropolitan City*

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**Qualitative and quantitative analysis of cholesterol in domestic pork**

**Eun-Ju Cho\*, Ho-Chang Kim, Jeung-Hee Lee**

*Department of Food and Nutrition, Daegu university, Korea*

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**Gi-Un Seong<sup>1\*</sup>, Dae-Yong Yun<sup>1</sup>, Dong-Hyeok Shin<sup>1</sup>, Jeong-Seok Cho<sup>1,2</sup>,  
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*<sup>2</sup>Smart food manufacturing project group, Korea Food Research Institute*

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**김지현(Gee-Hyeon Kim)\***

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**Hyeon-Jun Chang\*, Jeung-Hee Lee**

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**이지혜<sup>1\*</sup>, 김대중<sup>1</sup>, 장은희<sup>1</sup>, 김효영<sup>1</sup>, 조형욱<sup>2</sup>, 이지원<sup>2</sup>**

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이우진<sup>1,2\*</sup>, 장신<sup>1</sup>, 원예선<sup>3</sup>, 채승훈<sup>3</sup>, 조정용<sup>2,3</sup>

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Ki-Yun Kim<sup>1\*</sup>, Jun-Hyeong Park, Hye-Gyeong Lee, Adebayo J. Akinboye, Gee-Hyeon Kim, Joon-Goo Lee

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Geun hee Cho<sup>1\*</sup>, Ji-Hyun Im<sup>2</sup>, Da-Hyun Ko<sup>3</sup>, Tae-Woong Song<sup>3</sup>, Geon Oh<sup>2</sup>, June seok Lim<sup>2</sup>, Xiaolu Fu<sup>2</sup>, Hee-Jae Suh<sup>4</sup>, Sun-Il Choi<sup>1</sup>, Ok-Hwan Lee<sup>2</sup>

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Da-Hyun Ko<sup>1\*</sup>, Tae-Woong Song<sup>1</sup>, Geun hee Cho<sup>2</sup>, Sang Min Park<sup>3</sup>, Jeong Hyun Seo<sup>3</sup> and Sun-Il Choi<sup>2</sup>

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Dong Sup Kim<sup>1</sup>, Jiwon Park<sup>2</sup>, Gyeongrim Jeong<sup>2</sup>, Jinyoung Lee<sup>1\*</sup>

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조미현\*, 김명현, 임재빈, 서창교, 박창현, 임무혁

대구대학교 식품공학과

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Hyun Jin Choi<sup>1,2\*</sup>, Ye Seul Kwon<sup>1,2</sup>, Han-Seok Choi<sup>1</sup>

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Sang Seop Kim<sup>1\*</sup>, Jeong-Seok Cho<sup>1,2</sup>, Gi-Un Seong<sup>1</sup>, Gyuseok Lee<sup>2</sup>, Seungmin Moon<sup>2</sup>, Jeong-Ho Lim<sup>1,2</sup>

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Hyeon Hee Gwak, Jeong Ah Park, Ga Hyun Baek, Ji Won Lee,  
Taek Kyun Choi, Sang Rag Lee, Jae Sung Kim\*

*KOTITI Testing & Research Institute*

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Estimation of Lycopene, Beta-Carotene, and Lutein Contents in Freeze-Dried Tomato Powder Using SWIR and Vis-NIR Spectroscopy with Machine Learning and 1D-CNN Models

Eunghee Kim<sup>\*1</sup>, Jong-Jin Park<sup>1</sup>, Gyuseok Lee<sup>1</sup>, Jeong-Seok Cho<sup>1,2</sup>, Seul-Ki Park<sup>1</sup>, Dae-Yong Yun<sup>2</sup>,  
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Seung-Bin Im<sup>1</sup>, Dong-Uk Kim<sup>1</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>,  
Young-Woo Koh<sup>1</sup>, Neul I Ha, Hee-Gyeong Jeong<sup>1</sup>, Dong-Hyeon Lee<sup>1</sup>, Sang-Wook Jeong<sup>1</sup>, and  
Kyoung-Sun Seo<sup>1\*</sup>

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Temporal trends in polychlorinated dibenzo-*p*-dioxins and dibenzofurans (Dioxins) in shellfish from Korean Coastal areas



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## 미생물/발효/안전성

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Selection of *Bacillus amyloliquefaciens* MYR1-3 for Traditional Jang Production and Comparison with Commercial Jang Manufacturing Strains in Meju Production

Ju-Ho Yeom<sup>1</sup>, Jong-Sik Kim<sup>2</sup>, Ho-Yong Sohn<sup>1\*</sup>  
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Pepper-Leaves of Salicho(*Capsicum annuum*L.) as Noble fermentation additive

Ju-Ho Yeom<sup>1</sup>, Jong-Sik Kim<sup>2</sup>, Chan-Yong Kim<sup>3</sup>, Sang-Seok Lee,<sup>3</sup>  
and Ho-Yong Sohn<sup>1\*</sup>  
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<sup>3</sup>Yeongyang Pepper Research, Gyeongsangbuk-Do Agricultural Research & Extension Services, Daegu,  
Korea. 41404

### P4-03

Microbiological Quality and Microbial Community Profile of Salted Shrimp (*Saeu-jeot*) Fermented in Underground Tunnel

Yeongsil Lim<sup>1</sup>, Hyungjin Cho<sup>1</sup>, Heeyeong Lee<sup>2</sup>, and Jeeyeon Lee<sup>1\*</sup>  
<sup>1</sup>Department of Food & Nutrition, Dong-eui University, Korea  
<sup>2</sup>Food Standard Research Center, Korea Food Research Institute, Korea

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Antibacterial activity of *Vaccinium oldhamii* fruit against *Helicobacter pylori*

Jungwoo Chae<sup>1</sup>, Hwiseon Jo<sup>1\*</sup>, Jong-Hun Ha<sup>2</sup>, Min-Kyoung Shin<sup>2</sup>, Woo-Kon Lee<sup>2</sup>  
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Application of deep learning for predictive modeling of foodborne pathogens in growth media and food samples

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**P4-06**

**Correlation of functional components by microbial community of fermentants (*Nuruk*)**

Su Jeong Lee\*, Woo Soo Jeong, Soo-Hwan Yeo, Chan-Woo Kim, Bo-Ra Lim  
*Fermented and Processed Food Science Division, Department of Agrofood Resource, NIAS, RDA*

**P4-07**

**Changes in quality characteristics during storage of Korean soy sauce added with onion juice according to heat sterilization conditions**

Eun Hye Kim<sup>1\*</sup>, Su Hawn Kim<sup>2</sup>, Won Hee Lee<sup>1</sup>, Jun Seo Jang<sup>1</sup>, Seong Gyun Kim<sup>1</sup>, Chang Ki Huh<sup>1,2</sup>

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<sup>2</sup>*Research Institute of Food Industry, Suncheon National University*

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**산업용 유산균 starter(10종)를 이용한 갈색거저리 유충(*Tenebrio molitor larva*)의 발효적성 탐색 및 선별**

Jun Seo Jang<sup>1\*</sup>, Su Hawn Kim<sup>2</sup>, Eun Hye Kim<sup>1</sup>, Won Hee Lee<sup>1</sup>, Ji Won Shin<sup>1</sup>, Hyun jin Kim<sup>3</sup>, Yeng hee Yu<sup>3</sup>, Chang Ki Huh<sup>1,2</sup>

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<sup>2</sup>*Research Institute of Food Industry, Suncheon National University*

<sup>3</sup>*Wormplace*

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**Comparison of quality characteristics based on the fermentation period of mealworms fermented with an industrial lactic acid bacteria starter (5 types)**

Jun Seo Jang<sup>1\*</sup>, Su Hawn Kim<sup>2</sup>, Eun Hye Kim<sup>1</sup>, Won Hee Lee<sup>1</sup>, Hyun jin Kim<sup>3</sup>, Yeng hee Yu<sup>3</sup>, Chang Ki Huh<sup>1,2</sup>

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<sup>2</sup>*Research Institute of Food Industry, Suncheon National University*

<sup>3</sup>*Wormplace*

**P4-10**

**경기도내 유통 와인의 잔류농약 실태조사**

신상윤\*, 김재관, 이현경, 이유진, 김지은, 백은진, 김병태, 최종철, 이성남, 박명기

*경기도보건환경연구원 농수산물검사부 서부농산물검사소*

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**Characterization of potential probiotics isolated from fermented foods from an island region**

Bohyun Yun<sup>1,2\*</sup>, Jung Up Park<sup>1,2</sup>, Seo-Young Kim<sup>1,2</sup>, Ji-Won Park<sup>1,2</sup>, Sungmin Hwang<sup>1,2</sup>, Chul-Min Park<sup>1,2</sup>, Hyun-Kyung Song<sup>1,2</sup>, Haneul Kim<sup>2</sup>, Sori Kang<sup>2</sup>, Go Kyoung Na<sup>1,2</sup>, Jisoo Kim<sup>1,2</sup>, SongYi Han<sup>1,2</sup>, Kyung-Min Choi<sup>1,2</sup>, WonWoo Lee<sup>1,2</sup>

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**친환경 및 저탄소 농산물의 잔류농약 실태조사**

김지은\*, 김재관, 신상운, 이정희, 이유진, 백은진, 김병태, 이성남, 박명기

경기도보건환경연구원 안산농수산물검사소

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**Compare of the thermal resistance between *Bacillus* strains and sterilization indicator microorganism**

Ju-hee Nam\*, Du-yeong Jung, Zi-on Choi, Hyun-jung Jung, Jung-beom Kim

Department of Food Science and Technology, Sunchon National University

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**머신러닝기반 음성인식 의도 분석 시스템을 통한 수입 식품 정보 전달 기법**

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대구경북과학기술원 ICT연구본부

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**IoT기반 수입 식품 정보 조회 및 전달을 위한 스마트 TV 어플리케이션 개발**

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**Enhanced control efficacy of *Bacillus subtilis* NM4 via integration of chlorothalonil on potato early blight caused by *Alternaria solani***

Ye-Seon Won<sup>1</sup>\*, Si-Hun Song<sup>1</sup>, Jun Su Noh<sup>2</sup>, Seo Hyun Hwang<sup>2</sup>,

Chaw Ei Htwe Maung<sup>3</sup>, Jeong-Yong Cho<sup>1</sup>, Kil Yong Kim<sup>2</sup>

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**발효기반 국산 곡물원료를 사용한 비건 제과-제빵류 개발**

정윤지<sup>1</sup>\*, 백세은<sup>1</sup>, 김명선<sup>1</sup>, 백지환<sup>1</sup>, 윤지애<sup>2</sup>

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<sup>2</sup>힐사이드양림

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**Characterization of acid production and aroma profiles in four *Acetobacter pasteurianus* strains isolated from Korean traditional vinegar**

Rich Son\*, Joo-Yeon Kim, Soo-Hwan Yeo, Ji-Ho Choi, Chan-Woo Kim  
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National Institute of Agricultural Sciences, RDA*

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흰점박이꽃무지 유충 세척수 및 열수 데침 시간에 따른 미생물 분석

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The effects of high-temperature treatment on the quality of *makgeolli*

Ji-Youn KIM\*, Ji-Eun Kang, Gui-Jung Han, Bo-Ra Im

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Korea*

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Monitoring result of mycotoxins from foods distributed in Daegu

Eun-ji Ha\*, Hyeon-min Jang, Eun-jin Lee, Soo-jin Kwon, Yeon-soo Kim, Jun-tag Lee

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그린바이오품을 활용한 바이오양액 제조 및 천연물 소재화

백다예<sup>1</sup>, 최현아<sup>1</sup>, 서경민<sup>1</sup>, 백지환<sup>1</sup>, 윤지환<sup>2</sup>

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Analysis of quality characteristics of black barley makgeolli according to production and fermentation periods

Soo-Young Lee\*, Hee-Min Gwon, Joo-Yeon Kim, Soo Jeong Lee, Ji-Ho Choi, Hyun-wook Jang,

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Agricultural Sciences, RDA*

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Optimization of Culture Conditions for *Acetobacter pasteurianus* Strains for Fermentation Starter Production

Joo-Yeon Kim\*, Rich Son, Sun-Hee Kim, Soo-Hwan Yeo, Ji-Ho Chio and Chan-woo Kim

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Production of  $\gamma$ -aminobutyric acid by batch fermentation of *Lactobacillus brevis* FBL-4 from agricultural wastes such as rice bran and wheat bran

Hyun-Gyu Lee<sup>1\*</sup>, Jong-Hun Jang<sup>2</sup>, Ji-In Kim<sup>1</sup>, Young-Jung Wee<sup>1</sup>

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**Rebaudioside A and rebaudioside E with  $\alpha$ -1,6-glucoylated derivatives were simultaneously produced from the *Leuconostoc citreum***

**Ok Cheol Kim<sup>1\*</sup>, Seong-Jin Hong<sup>1</sup>, Da Eun Jang<sup>1</sup>, Hye-Jin Kim<sup>1</sup>, Young-Min Kim<sup>1</sup>**

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**Enterotype-specific Changes in the Intake Soybean paste and Their Effects on the Human Gut Microbiota**

**Ji-Won Seo, Gwang su Ha, Hee-Jong Yang and Do-Youn Jeong\***

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**Microbial biomarker discovery and comparative microbiome analysis in Cheonggukjang supplied *Bacillus subtilis* SRCM102751, using next generation sequencing**

**Hee Gun Yang, Ji Won Seo, Gwangsu Ha, Hee-Jong Yang and Do-Youn Jeong\***

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**P4-29**

**Quality Analysis of Cheonggukjang Using Complex Microbial Starters Isolated from Traditional Cheonggukjang**

**Myeong Seon Ryu, Young Kyoung Park, Jinwon Kim, Hee-Jong Yang and Do-Youn Jeong\***

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**Enhancement of microbial safety and quality maintenance of fresh produce by using caprylic acid and mild heat**

**Minyeong Jung\*, Yeonju Kim, and Jaewoo Bai**

*Department of Food Science and Technology, Seoul Women's University, Korea*

**P4-31**

**Effect of disinfectant on microbial reduction of vegetables**

**Du-Yeong Jung\*, Ju-Hee Nam, Zi-On Choi, Hyun-Jung Jung, Jung-Beom Kim**

*Department of Food Science and Technology, Suncheon National University*

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**Complete genome sequences of acetic acid-producing *Acetobacter pasteurianus* GH47**

Sun Hee Kim\*, Hyun-Wook Jang, Jin-Ju Park, Chan-woo Kim, Su Jeong Lee, So-Young Kim  
*Fermented and Processed Food Science Division, Department of Agrofood Resources, NIAS, RDA, Wanju  
55365, Korea*

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**Identification of the antibacterial substances from a fermented extract from green tea leaves with *Saccharomyces cerevisiae***

Jong-Woong Nam\*, Ga-Yang Lee, Min-Jeong Jung, Jin Lee,  
Ju-Yeon Park, Ji-Seong Hong, Byoung-Mok Kim, Joon-Young Jun  
*Korea Food Research Institute*

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**Quality characteristics of mash depending on quantity of barley added for developing barley-distilled *soju***

Ye Seul Kwon<sup>1,2\*</sup>, Jisu Lee<sup>1,2</sup>, Han-Seok Choi<sup>1</sup>

<sup>1</sup>*Department of Agriculture and Fisheries FoodTech, Korea National University of Agriculture and Fisheries,* <sup>2</sup>*Department of Food Science and Technology, Jeonbuk National University*

**P4-35**

**Cyclodextran Synthesis from starch utilizing TtCITase from *Thermoanaerobacter thermocopriae***

Seong-Jin Hong<sup>\*1,2</sup>, Chana Hee Park<sup>2</sup> & Young-Min Kim<sup>2</sup>  
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<sup>2</sup>*Department of Integrative Food, Bioscience and Biotechnology, Chonnam National University, Gwangju 61186, S. Korea*

**P4-36**

**Physiochemical Properties of Doenjang Fermented with *Monascus Koji* and *Aspergillus Koji***

Jun-Hyung Lim\*, In-Ja Lee, Yong-Soo Lee and Mi-Ryung Kim  
*Department of Food Science and Culinary Art, Silla University, Republic of Korea*

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**Analysis of the setomimycin biosynthetic gene cluster from *Streptomycesnojiriensis* JCM3382 and evaluation of its  $\alpha$ -Glucosidase inhibitory activity using molecular docking and molecular dynamics stimulations**

Kyung-A Hyun<sup>\*1</sup>, Xuhui Liang<sup>2</sup>, Yang Xu<sup>2</sup>, Seung-Young Kim<sup>3</sup>, Kyung-Hwan Boo<sup>1</sup>, Jin-Soo Park<sup>4</sup>,  
Won-Jae Chi<sup>5</sup>, and Chang-Gu Hyun<sup>2</sup>

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고춧가루 조제 과정 중 이산화염소를 활용한 농약의 저감화 효과 검증

유다영\*, 조재윤, 이효섭, 김향희

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고추 중 이산화염소를 이용한 Indoxacarb 등 5종 농약의 저감화 효과 검증

조재윤\*, 유다영, 이효섭, 김향희

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A novel encapsulation system using sodium alginate/cellulose nanofiber for increasing the stability of probiotic *Lactiplantibacillus plantarum* CJLP 133

Hyeon Ji Jeon\*, Gyu Ri Shin, Hye Min Jeong, Young Hoon Jung

School of Food Science and Biotechnology, Kyungpook National University

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Anti-Diabetic and Anti-Inflammatory Effects of Heat-Killed *Lactococcus lactis* subsp. *cremoris* IMCCL013 in LPS-stimulated RAW 264.7 Macrophages

Min Gyeol Kim, Baul Yang, Yu Jin Choi<sup>1\*</sup>

Imsil Cheese & Food Research Institute

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Synthesis and characterization of alpha-glucosylated rebaudioside D using glucosyltransferases

Hye-jin Kim<sup>1\*</sup>, Seong-Jin Hong<sup>2</sup>, Da Eun Jang<sup>1</sup>, Ok Cheol Kim<sup>1</sup>, Jeong-Yong Cho<sup>1</sup>, Boo-Su Park<sup>3</sup>,  
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Production of caffeine-reduced kombucha and measurement of fermentation characteristics

Da Eun Jang<sup>1\*</sup>, Seong-Jin Hong<sup>3</sup>, Hye jin Kim<sup>1</sup>, Ok Cheol Kim<sup>1</sup>, Young-Min Kim<sup>1,2</sup>

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참외의 스마트 세척기술 개발 및 현장검증 연구

민주현<sup>1\*</sup>, 이효섭<sup>2</sup>, 김향희<sup>2</sup>, 정건희<sup>3</sup>

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<sup>3</sup>임실치즈앤식품연구소

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**A Study of the Quality Characteristics of Wine Made from Imsil Peaches**

Se Yeon Choi\*, Youn Kyung Cho\*, Joo Hee Hong, Gun Hee Jung, Young Yoon

*\*Food research & development Team, Imsil Cheese & Food Research Institute*

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**Evaluation of anti-inflammatory effects of *Lactocaseibacillus rhamnosus* L22-FR28 (KACC 92513P) isolated from infant feces in an animal model**

Seoyeon Kwak\*, So-Young Kim

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*Wanju, 55365, Korea*

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**Development of a phage cocktail as a novel antibacterial strategy against pathogenic *Escherichia coli***

Gahyeon Nam<sup>1\*</sup>, Wonjae Lee<sup>1</sup>, Hakdong Shin<sup>2</sup>, Bokyung Son<sup>1</sup>

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<sup>2</sup>*Department of Food Science and Biotechnology, Sejong University*

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**Isolation and characterization of novel bacteriophages as biological control agents against *Bacillus licheniformis* in dairy products**

Minji Kim\*, Jae Hyeok Jeon, Bokyung Son

*Department of Food biotechnology, Dong-A University*

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**Antibacterial activity and physiological characteristics of lactic acid bacteria isolated from pet dogs**

Hwa Seol Ryu, Chun Pyo Jeon, Seung Hun Han\*

*Department of Bio Vaccine and Pharmaceutical, Andong Science College*

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**Development and validation of a strain-specific genome marker for monitoring *Bacillus velezensis* NY12-2 among *Bacillus* Species**

SeongEui Yoo\*, SeoYeon Kwak, SeungA Woo, Hyun-Wook Jang, So-Young Kim

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**Intake of Major Microorganisms in *Meju* and *Cheonggukjang*: Analysis Using KNHANES Data**

Seung-A Woo\*, SeungEui Yoo, So Young Kim

*National Institute of Agricultural Science, RDA, Wanju, 55365, Korea*

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**Development of Bacterial Nanocellulose Based Core-Shell Gels as a Novel Encapsulant for Target Delivery of Probiotics**

Gyu Ri Shin\*, Hyeon Ji Jeon, Hye Min Jeong, and Young Hoon Jung

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**Quality assessment of fermentation agents (Koji and Nuruk) for the production of collagen Makgeolli**

Rye Gyeong Park<sup>1\*</sup>, Jun-Hyung Lim<sup>1</sup>, Soo Hyun Han<sup>1</sup>, Sang-Jae Lee<sup>1</sup>, Yong-Soo Lee<sup>1</sup>, Jae Hak Sohn<sup>1,2</sup> and Mi-Ryung Kim<sup>1</sup>

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**Isolation and identification of proteolytic and acidogenic microorganisms from squid viscera**

Ji-Yun Oh<sup>1\*</sup>, So-Yeon Sim<sup>1</sup>, Divya Gupta<sup>1</sup>, Jong-Hyeon Lee<sup>1</sup>, Jun-Hwan Bae<sup>1</sup>, Hyeon-Ki Choi<sup>2</sup>, Sae-Byuk Lee<sup>1,2,3</sup>

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**Quality characteristics and nutritional properties of high-oleic acid *Doenjang***

Bu-Gyeong Son<sup>1\*</sup>, Yeong-Jun Kim<sup>1</sup>, Su-Hyun Lee<sup>1</sup>, Jong-Hyeon Lee<sup>1</sup>, Jun-Hwan Bae<sup>1</sup>, So-Yeon Kim<sup>2</sup>, Jeong-Dong Lee<sup>3</sup>, and Sae-Byuk Lee<sup>1,2,4</sup>

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**Optimization of production conditions of microbial exopolysaccharide by *Mitsuaria chitosanitabida* for industrial applications**

Ye-Na Lee<sup>1\*</sup>, Yeong-Jun Kim<sup>1</sup>, Su-Hyun Lee<sup>1</sup>, So-Yeon Sim<sup>1</sup>, Divya Gupta<sup>1</sup>, So-Yeon Kim<sup>2</sup>, Hyeon-Ki Choi<sup>2</sup> and Sae-Byuk Lee<sup>1,2,3</sup>

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**Optimization of Monacolin-K production and physiological activities for fermentation products of solid-stated fermentation with *Monascus ruber* KACC45308**

Jeong-Ha Lee, Jun-Tae Kim, Suyeon Gu, Seungwha Jo,  
Sung-ho Cho, Do-Youn Jeong

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**Enhanced quality characteristics of brandy aged with oak chips from domestic Grapes**

Jun-Su Choi<sup>1,2\*</sup>, Bu-Gyeong Son<sup>1</sup>, Ji-Yun Oh<sup>1</sup>, Ye-Na Lee<sup>1</sup>, Kyu-Taek Choi<sup>1</sup>, Sae-Byuk Lee<sup>1,2</sup>

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<sup>2</sup>*Institute of Fermentation Biotechnology, Kyungpook National University*

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**Analysis of Quality Characteristics of *Meju* and *Doenjang* by type of Mold Starter with *Aspergillus oryzae***

Jin-Kyeong Kim <sup>\*</sup>, Sung-Ho Cho, Do-Youn Jeong

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**Screening of citrinin-free *Monascus ruber* KACC45308 for Monacolin-K production and optimization of spore production in Submerged Culture**

Jun-Tae Kim<sup>\*</sup>, Jeong-Ha Lee, Sung-ho Cho, Do-Youn Jeong

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**Development of Initial Screening Model for Pesticide Residues in Agricultural Fields Using National and Regional Monitoring Data**

Sang-Ik Suh<sup>1\*</sup>, Chang-Jun Lee<sup>1</sup>, Jinuk Jang<sup>1</sup>, Boram Kim<sup>2</sup>, Dawon Kim<sup>2</sup>, Bumseok Lee<sup>2</sup>, Hyo-Sub Lee<sup>3</sup>,  
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**Fermentation characteristics of green and red kimchi cabbages (*Brassica rapa*. L. ssp. *pekinensis*) with WiKim0121**

Seung-Min Oh<sup>1\*</sup>, Jiyeon Chun<sup>1,2</sup>

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## 생리활성/영양/기능성

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**Comparison of physicochemical properties between pepper leaf and pepper fruit harvested from Korean native pepper variety**

Ju-Ho Yeom<sup>1</sup>, Eun-Seo Im<sup>1</sup>, Jong-Sik Kim<sup>2</sup>, Chan-Yong Kim<sup>3</sup>,  
Sang-Seok Lee,<sup>3</sup> Ho-Yong Sohn<sup>1\*</sup>

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Korea. 41404

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***Typha* sp., domestic freshwater aquatic plants could be developed as potent anti-thrombotic, anti-diabetic and anti-oxidant agent**

Ju-Ho Yeom<sup>1</sup>, Eun-Seo-Im<sup>1</sup>, Jong-Sik Kim<sup>2</sup> and Ho-Yong Sohn<sup>1\*</sup>

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**Comparison of functional components and biological activities in domestic legumes of soybean and adzuki bean**

Narae Han<sup>1\*</sup>, Hyun-Joo Kim<sup>1</sup>, Jung Hyun Seo<sup>2</sup>, Jin Young Lee<sup>1</sup>, Hyeonmi Ham<sup>1</sup>, Jiyoung Park<sup>1</sup>,  
Mihyang Kim<sup>1</sup>, Yu-Young Lee<sup>1</sup>, Moon Seok Kang<sup>1</sup>

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***Catalpa bignonioides* extract improves exercise performance through regulation of growth and metabolism in skeletal muscles**

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**Anti-oxidant, whitening and anti-obesity effects of red fleshed pitaya(*Hylocereus polyrhizus*) extract**

Rina Lee<sup>1\*</sup>, Myunghyup Oh<sup>1</sup>, Jungmin Lee<sup>1</sup>, Hyunju Lee<sup>1</sup>, Jaehong Park<sup>1</sup>, Aekyoung Moon<sup>1</sup>,  
Soonyeong Kim<sup>1</sup>

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**LC-MS 기반 품종에 따른 자색무의 무와 무청의 유용성분 변화**

채승훈<sup>1</sup>, 이선진<sup>2</sup>, 최원영<sup>2</sup>, 홍지우<sup>2</sup>, 이상현<sup>1</sup>, 문재학<sup>2</sup>, 조정용<sup>2\*</sup>

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**Emodin-8-β-D-glucoside derived from *Reynoutria japonica* ameliorates *Dermatophagoides farinae* extract-induced atopic dermatitis-like skin inflammation in mice by inhibiting JAK/STAT signaling**

Hyun-Kyung Song<sup>1\*</sup>, Ki-Shuk Shim<sup>2</sup>, Musun Park<sup>3</sup>, Hye Jin Kim<sup>2</sup>, Seol Jang<sup>2</sup>, WonWoo Lee<sup>1</sup>,  
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**Inhibitory effect of Quercetin of pro-inflammatory cytokines in *Pseudomonas aeruginosa* infected A549 cells**

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**A Study on the Metabolite profiling of Traditional Meju Produced by Region using GC-TOF**

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**Evaluation of the Usability of Leaves of Korean Tea Cultivar 'Sangnok' as Food Additives**

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**Antioxidant Effect and Total Polyphenol Contents of Leaves of Korean Tea Cultivar 'Kumnok'**

Yun-Suk Kwon, Byung-Hyuk Kim, Ha Rim Hong, Eun Yong Song, Doo-Gyung Moon\*

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해남산 참숙의 수확시기별 항균활성 및 항산화활성

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갈색거저리 발효산물을 이용한 장건강 기능성 펫푸드의 항산화 활성

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Anti-oxidant and Anti-inflammatory Effect of Beneficial Bacteria and Harmful Components in ethanol extraction from Traditional Korean *Cheonggukjang*

Kyung Eun Moon<sup>1)\*</sup>, Hyeon Hwa Oh<sup>1)</sup>, Byung-Min Oh<sup>1)</sup>, Do Youn Jeong<sup>2)</sup>, Young-Soo Kim<sup>1)</sup>

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Effect of Beneficial Bacteria and Harmful Components in Traditional Soybean paste on the Anti-oxidant and Anti-inflammatory Activities

So-Won Jang<sup>1)\*</sup>, Do Youn Jeong<sup>2)</sup>, Geun-Seoup Song<sup>1)</sup>

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Inhibitory activities of lignanamides on tyrosinase

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오디 속도에 따른 폴리페놀 화합물 함량 및 항염증 활성 비교

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Development of energy bars using apples, pomegranates, and beet wastes for elderly health, and their antioxidant activities

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약용식물 열수추출물의 기능성분 및 인체 폐암세포 항증식 활성

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사단법인 천수 산약초연구회

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Preparation of Soy Protein Hydrolysate by Enzymatic Hydrolysis

Eun Chae Lee<sup>1\*</sup>, Min Ji Kang<sup>1</sup>, Eun Ji Lee<sup>1</sup>, Hae Jin Kim<sup>1</sup>, Do Wan Kim<sup>2</sup>  
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$\alpha$ -Ionone alleviates chronic UVB exposure-induced skin photoaging in mice

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Optimization of enzyme-assisted extraction condition for producing soluble dietary fiber with antidiabetic activity from brewer's spent grain using response surface methodology

Se Yul Lee<sup>\*</sup>, Si Hyung Lee, Min Ji Kang, Eun Chae Lee,  
Kyung Young Yoon

Department of Food and Nutrition, Yeungnam University

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Molecular Docking of the *Gardenia jamaicensis* Seed Ingredients for Tyrosinase and Elastase Inhibition

Jae-Sik Nah<sup>1\*</sup>, Bo-Rim Song<sup>1</sup>, Young-Jin Jo<sup>1</sup>, Won-Sik Choi<sup>2</sup> and , Sang-Han Lee<sup>1,3</sup>

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Fangchinoline, a major alkaloid of *Stephania tetrandra* S. Moore, inhibits adipogenesis of 3T3-L1 cells

Gyu-Hyeon Park\*, Su-bi Lee, Syng-Ook Lee

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Fetal bovine serum substitution efficacy of mealworm (*Tenebrio molitor*) protein hydrolysates and its physicochemical properties

Jeong-Min Lee\*, Hyo-Seon Lee, Syng-Ook Lee

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**Anti-oxidant and anti-proliferation effect of *Euonymus alatus* (Thunb.) Siebold. leaf extract**

Seong-mi Park<sup>1\*</sup>, Hye-ji Min<sup>1</sup>, Won-joo Yoon<sup>2</sup>, Kwon-il Seo<sup>1</sup>

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<sup>2</sup>Department of Bioscience and Biotechnology, Kyushu University, Japan

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**Antioxidative activities of various solvent extracts from leaves and fruits of Fig (*Ficus carica* L)**

Hyo-jeong Yun<sup>1</sup>, Cho-eeun Kim<sup>1</sup>, Jaeyong Kim<sup>1</sup>, So Mi Lee<sup>2</sup>, Gyuok Lee<sup>1\*</sup>

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**청태전 농축액 가글이 구강 미생물에 미치는 영향**

김은혜\*, 안호섭, 김지영, 박현석, 정수진, 조혜성, 최정, 고숙주

전라남도농업기술원

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**Polyphenol and Flavonoid Compound Contents, and Antioxidant Activity of *Carica papaya* Seed Water Extract**

Jeong Sook Moon, Yang Suk Lee, Su Jeong Seo\*

Department of Herbal Biotechnology, Daegu Haany University, Gyeongsan, Gyeongbuk 38610, Korea

**P5-30**

**Useful Ingredients and Antioxidant Activities of Extracts from Seeds of *Carica papaya***

Yang Suk Lee, Jeong Sook Moon, Su Jeong Seo\*

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**Changes in The Functional Ingredient Content of *S. glabrescens* Hot Water Extract According to the Number of Steaming Times Using Makgeolli**

Cha-Yeon Kim, Su-Jeong Seo, Yang-Suk Lee\*

Department of Herbal Biotechnology, Daegu Haany University

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**Antioxidative Activities of Hot Water Extract from of *S. glabrescens* Steaming Using Makgeolli**

**Su-Jeong Seo, Cha-Yeon Kim, Yang-Suk Lee\***

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**P5-33**

**Amino acid derivatives of monascus pigments with inhibitory activity against cholesterol biosynthesis**

**Dayoung Bok<sup>1\*</sup>, Hana Cho<sup>2</sup>, Yeongjun Kim<sup>1</sup>, Nahyeon Kim<sup>1</sup>, Deokyeong Choe<sup>1</sup>**

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<sup>2</sup>*Department of Biotechnology, Yonsei University*

**P5-34**

**Study on the antioxidant and anti-inflammatory efficacy of strawberries cultivated in Imsil from Korea in HaCaT keratinocytes**

Joo Hee Hong\*, Gun Hee Jung, Se Yeon Choi, Youn Kyung Cho, Young Yoon

*\*Food research & development Team, Imsil Cheese & Food Research Institute*

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**Development of a beverage with antibacterial, antioxidant, and anti-inflammatory activities from a mixture containing extracts of Omija (*Schizandra chinensis*), pear (*Pyrus pyrifolia*), and Doraji (*Platycodon grandiflorum*)**

Hyeonsoo Lim, Jihye Lee, Chun Pyo Jeon, Seung Hun Han\*

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**Development of herbal medicine complex composition effective for inflammation and insomnia**

**Moonseok Kwon<sup>1</sup>, Youngjun Kim<sup>1</sup>,**

**Yun-Hoe Kim<sup>2</sup>, Chun Pyo Jeon<sup>1</sup>, Seung Hun Han<sup>1\*</sup>**

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**Comparative analysis of antioxidant and antimicrobial activities of wild berries from Mongolia**

**Buyanbadrakh Enkhbolor <sup>1\*</sup>, Jun-Hyun Oh<sup>1</sup>**

<sup>1</sup>*Department of Food Science and Technology, Sangmyung University*

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**Production and functional properties of phycocyanin obtained from *Galdieria sulphuraria* 074G2**

Ga-Min Choi<sup>1\*</sup>, Jun-Hyun Oh<sup>1</sup>

<sup>1</sup>*Department of Food Science and Technology, Sangmyung University*

**P5-39**

**Enzymatic Preparation and Antioxidant Activities of Protein Hydrolysates from *Locusta migratoria***

Go-Eun Ko\*, Woo-Jeong Do, Chae-Eun Kim, Dong-Min Shin,  
Syng-Ook Lee

*Department of Food Science and Technology, Keimyung University*

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**Development and Refinement of a Personalized Health Functional Food Recommendation Algorithm Based on the National Health and Nutrition Examination Survey(KNHANES)**

Jun Gu Lee<sup>1,2,3\*</sup>, Sang Gyeong Lee<sup>2</sup>, Hyeock Yoon<sup>2</sup>, Jung Hyeon Park<sup>1,3</sup>,  
Bok Kyung Han<sup>1,2</sup>, Young Jun Kim<sup>1,2,3</sup>, Ji Youn Hong<sup>1,2</sup>

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<sup>3</sup>*BK21 FOUR Research Education Team for Omics-based Bio-health on Food Industry, Korea University, Korea*

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**Useful components and biological activity of *Houttuynia cordata* whole plant ethanol extract**

Kyeong-Won Yun<sup>1</sup>, Kyung-Je Kim<sup>2</sup>, Seong-Woo Jin<sup>2</sup>, Young-Woo Koh<sup>2</sup>, Seung-bin Im<sup>2</sup>, Neul I Ha<sup>2</sup>,  
Hee-Gyeong Jeong<sup>2</sup>, Sang-Wook Jeong<sup>2</sup>, Yu Jin Choi<sup>3</sup>, and Kyoung-Sun Seo<sup>2\*</sup>

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<sup>3</sup>*Imsil Cheese & Food Research Institute*

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**Whitening activity of *Stachys sieboldii* tuber fermented with mushroom mycelia**

Seung-bin Im<sup>1</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>, Young-Woo Koh<sup>1</sup>,  
Neul I Ha<sup>1</sup>, Hee-Gyeong Jeong<sup>1</sup>, Sang-Wook Jeong<sup>1</sup>, Dong-Hyeon Lee<sup>1</sup>, Dong-Uk Kim<sup>1</sup>, Kyeong  
Won Yun<sup>2</sup>, Yu Jin Choi<sup>3</sup>, Kyoung-Sun Seo<sup>1\*</sup>

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**A 4-Week, Randomized, Double-Blind Clinical Trial to Evaluate the Efficacy and Safety of**

## Red Pepper Paste (Gochujang Powder) Intake on Intestinal Microbiome and Improved Bowel Movements

Hui-Yeon Jang<sup>1\*</sup>, Eun-Ock Park<sup>1</sup>, Mi-Rae An<sup>1</sup>, Su-Jin Jung<sup>1,3</sup>, Hee-Jong Yang<sup>2</sup>, Gwang-Su Ha<sup>2</sup>,  
Seung-Ok Lee<sup>1,3,4</sup>, Soo-Wan Chae<sup>1,3</sup>

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#### Anti-inflammatory effect of fucoidan from *Saccharina japonica* on particulate matter (PM)-stimulated skin cells *in vitro* and TPA-induced ear edema in an *in vivo* mouse model

Kirinde Gedara Isuru Sandanuwan Kirindage<sup>1\*</sup>, Arachchige Maheshika Kumari Jayasinghe<sup>1</sup>, Hitihami Mudiyansele Chalani Bhagya Deshapriya<sup>1</sup>, Hewayalage Madushika Kumari Ranasinghe<sup>1</sup>, Nam-Ki Cho<sup>2</sup>, Seok-Ho Cho<sup>3</sup>, and Ginnae Ahn<sup>1</sup>

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#### Comparison of imputation models for missing data in food nutrient databases

Haeseong Yang<sup>1\*</sup>, Yeonsu Do<sup>1</sup>, Yubin Lee<sup>1</sup>, Jihwan Lim<sup>1</sup>, Minkyu Song<sup>1</sup>, Jung Hyeon Park<sup>1,3</sup>, You Jin Yang<sup>2</sup>, Jung Won Park<sup>2</sup>  
Young Jun Kim<sup>1,2,3</sup>, Ji Youn Hong<sup>1,2</sup>

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#### Antioxidant Properties of 'Sangjudungsi' leaf extracts using different extraction methods and extraction time.

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#### Effect of *Saccharina japonica* ethanol extract on skin dryness in fine dust-stimulated HaCaT keratinocyte and its biological mechanism

Hewayalage Madushika Kumari Ranasinghe<sup>1\*</sup>, Kirinde Gedara Isuru Sandanuwan Kirindage<sup>1</sup>,  
Arachchige Maheshika Kumari Jayasinghe<sup>1</sup>, Hitihami Mudiyansele Chalani Bhagya Deshapriya<sup>1</sup>,  
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**P5-48**

**Protective effect of *Curcuma longa* L. leaves and pseudostems extract on IgE/BSA-stimulated mast cell activation and DNCB-induced atopic dermatitis in a BALB/c mouse model**

**Arachchige Maheshika Kumari Jayasinghe<sup>1\*</sup>, Kirinde Gedara Isuru Sandanuwan Kirindage<sup>1</sup>, Hitihami Mudiyansele Chalani Bhagya Deshapriya<sup>1</sup>, Hewalayage Madushika Kumari Ranasinghe<sup>1</sup>, Sun-Hyung Kim<sup>2</sup>, Seok Lee<sup>2</sup>, Ginnae Ahn<sup>1</sup>**

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**Effect of subcritical water extract from *Saccharina japonica* against skin dryness in fine dust-stimulated HaCaT keratinocytes**

**Hitihami Mudiyansele Chalani Bhagya Deshapriya<sup>1\*</sup>, Arachchige Maheshika Kumari Jayasinghe<sup>1</sup>, Kirinde Gedara Isuru Sandanuwan Kirindage<sup>1</sup>, Hewalayage Madushika Kumari Ranasinghe<sup>1</sup>, Nam-Ki Cho<sup>2</sup>, Seok-Ho Cho<sup>3</sup> and Ginnae Ahn<sup>1,4</sup>**

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**P5-50**

**Antioxidant characteristics of green and black teas traditionally manufactured in the Jeonnam region of Korea**

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**Anti-Skin Aging *Centella asiatica*-Mediated Green Synthesis with Gold Nanoparticles Using Deep Eutectic Solvents**

**Young-Jin Jo<sup>1\*</sup>, Bo-Rim Song<sup>1</sup>, Jae-Sik Na<sup>1</sup>, Chang Hyung Lee<sup>2</sup> and Sang-Han Lee<sup>1,3</sup>**

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**P5-52**

**Beyond Conventional Solvents: Enhanced Antioxidant Effect of Natural Hydrogen Bond Solvents from *Dillenia indica* L. Bark**

**Bo-Rim Song<sup>1\*</sup>, Jae-Sik Nah<sup>1</sup>, Young-Jin Jo<sup>1</sup>, Chang Hyung Lee<sup>2</sup>, Chi-Yeol Yoo<sup>3</sup>, and Sang-Han Lee<sup>1,4</sup>**

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**Natural Hydrogen Bond Solvents (NHBS): Increasing Antioxidant Potential and Marker Compound Content Beyond Traditional Solvents**

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**P5-54**

**Antioxidant and Tyrosinase and Elastase Inhibitory and UV protection effect of seaweed extracts (*Hizikia Fusiformis*, *Laminaria Japonica*, *Ulva lactuca*, and *Undaria Pinnatifida*)**

Do-Kyung Kim<sup>1</sup>, Hyun-jung Ko<sup>1</sup>, Wha-young Choe<sup>1</sup>, Min Jung Ryu<sup>2</sup>, and Kwontack Hwang<sup>1\*</sup>

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**P5-55**

**Nutritional profile of proximate and fat-soluble composition content generally consumed imported fisheries in Korea**

**JinWoo Yang<sup>1\*</sup>, Bo Gyeong Seol<sup>1</sup>, Young Eun Park<sup>1</sup>, Yu-Rin Jeong<sup>1</sup>, Ji-Eun Kim<sup>1</sup>, Su-Jin Han<sup>1</sup>, Su-Bin Park<sup>1</sup>, Ji-Young Kwon<sup>1</sup>, , Na-Young Yoon<sup>1</sup>**

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