

## 저장/포장/유통

### P1-1

Changes in freshness of 'Ilpum' rice by different storage conditions and periods

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### P1-2

Antimicrobial activity of chitosan-based ternary blend edible film incorporated with *Duchesnea indica* extract for strawberry application

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오리혈액의 건조방법에 따른 겔의 이화학적 및 기능적 특성 연구

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### P1-4

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이선미<sup>1\*</sup>, 안광환<sup>1</sup>, 김은경<sup>1</sup>, 윤혜숙<sup>1</sup>, 최성진<sup>1</sup>

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### P1-6

Quality analysis by treatment for improvement of glutinous corn storage

Ji-Seon Park\*, Jin-Kwan Ham, Eun Ha Chang, Jae Geel Lim,  
Jeung Ae Yoon, KyeHyun Lim, Hyang Kwon, Sun Young Kim, Kyung Ah Jang

**P1-7**

Edible insect extracted hydrolyzed protein: Effects on structure and functional properties

Tae-Kyung Kim<sup>1</sup>, Yea-Ji Kim<sup>1</sup>, Yoo-Jung Choi<sup>1</sup>, Jae Hoon Lee<sup>1</sup>, Hae Won Jang<sup>2</sup>, Samooel Jung<sup>3</sup>, Yun-Sang Choi<sup>1\*</sup>

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**P1-8**

Quality characteristics of salted kimchi cabbage according to leaf density

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DBD 플라즈마 활성종을 활용한 양파 부패율 저감에 대한 연구

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Selection of quality indicators and prediction of shelf-life of the meal-kit type chicken steak

Eun-Jin Lee<sup>1\*</sup>, Jae-Hee Park<sup>1</sup>, Jeong-Eon Lee<sup>2</sup>, Yong-Jun Cha<sup>2</sup>, Hye-Kyung Moon<sup>12</sup>  
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이소진  
지역농업네트워크 협동조합

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국립원예특작과학원 저장유통과

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Eun Hye Ryu, Sung Woong Gim, Ji Wung Kwon\*  
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Self-venting bio-degradable blend films for microwave packaging applications

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영상 처리를 활용한 식품 이미지 데이터 증강 기법

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Synthesis of antibacterial calcium oxide nanoparticles prepared from eggshell wastes

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**P1-18**

Quality change and evaluation in cold storage of fresh-cut fruits purchased from online and offline markets

Rye Gyeong Park<sup>1</sup>, Ju Hong Kang<sup>1</sup>, Ji Hyeon Lee<sup>1</sup>, Ji Eun Lee<sup>1</sup>, Won Ho Jeong<sup>1</sup>, Jae Won Lee<sup>1</sup>, Sung Ju Cho<sup>2</sup>, Il Kwon Bae<sup>3</sup>, and Jae Hak Sohn<sup>12\*</sup>

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#### **P1-19**

A study on the correlation between freshness factors of white rice

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Ho Rim Jang<sup>1\*</sup>

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폴리케톤 기반 고차단성 다층필름의 식품 저장 연장효과

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#### **P1-21**

Effects of packaging methods on freeze-thawing characteristics of passion fruit

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#### **P1-22**

Quality change and evaluation in cold storage of fresh-cut vegetables purchased from online and offline markets

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**P1-23**

Use of cellulose nanofibers (CNF) with a red radish color extract as a pH indicator packaging

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41566, Republic of Korea

**P1-24**

Hot water treatment reduces peel browning of oriental melon by modulating cutin metabolism

Me-Hea Park<sup>1\*</sup>, Gyung-Ran Do<sup>2</sup>, Siva Kumar Malka<sup>1</sup> Kang-Mo Ku<sup>3,</sup>

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전처리 농산물의 소비 행태 및 유통 제품의 미생물 오염도 모니터링

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Biorefinery application of rice husks and valorization of each process by-products

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Analysis of packaging used for dried processed fruit/vegetable products in Korea

Chae Wan Baek, Yong Sik Cho

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National Institute of Agricultural Science.

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Application of word2Vec algorithm to determine "the same imported food product from the same company" guidelines

Young-June Kim<sup>1\*</sup>, Sang-Soon Kim<sup>2</sup>, Mi-Kyung Park<sup>3</sup>, Young-Duk Kim<sup>4</sup>, and Jun-Hyun Oh<sup>1</sup>

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**P1-29**

Effect on quality factors during the distribution of stored 'Fuji' apples at room temperature

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**P1-30**

Effect of cultivation area and cold storage period on the quality of 'Fuji' Apples

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**P1-31**

도라지 플러그 묘 온실 육묘 시 상토조성에 따른 생육 비교

김윤숙<sup>1\*</sup>, 이상은<sup>1</sup>, 조용남<sup>1</sup>, 김태원<sup>1</sup>, 허재영<sup>1</sup>, 이흥수<sup>1</sup>,

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**P1-32**

Comparison of flavor and marketability by fresh-cut fruits combination

Min-Sun Chang\*, Hun-Joong Kweon, Ji Hyun Lee, Mi-Hee Choi, Haejo Yang, Bu-Hee Park

## 가공/품질

### P2-1

IRG 품온 상승 억제 및 예건용 시험장치 성능 시험

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### P2-2

동결건조 간편식품의 재수화 분산안정성 증진을 위한 전분류 열처리 호화과정 중 균질처리 조건검토

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한국식품연구원 식품융합연구본부

### P2-3

Effects of plant cell wall-degrading enzyme treatment and yeast fermentation on the antibacterial and antioxidant activities of green tea extract

Min-Jeong Jung<sup>1</sup>, Jong-Woong Nam<sup>1</sup>, Ah-Ram Han<sup>1</sup>, Byoung-Mok Kim<sup>1</sup>,  
In-Hak Jeong<sup>2</sup>, Joon-Young Jun<sup>1\*</sup>

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<sup>2</sup>Department of Marine Food Science and Technology, Gangneung-Wonju National University

### P2-4

The rheological and thermal properties of organogel containing *Tenebrio molitor* (mealworm) oil for developing solid fat replacer in meat patty

Hae Won Song<sup>1\*</sup> and Imkyung Oh<sup>a1</sup>

<sup>1\*</sup>Department of Food Science & Technology, Sunchon National University

### P2-5

The structural, rheological, and thermal properties of oleogels with insect oil: Beeswax and glycerol monostearate interactions towards *Tenebrio molitor* larvae oil

Sohui Jeong<sup>1\*</sup>, Imkyung Oh<sup>1</sup>

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#### **P2-6**

Functional, microbial and sensorial properties of probiotic banana juice fermented by lactic acid bacteria

Do Young Kim<sup>1\*</sup>, Imkyung Oh<sup>1</sup>

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#### **P2-7**

The effect of xanthan addition on the quality of fish cracker

Chae Young Jung<sup>1\*</sup>, and Imkyung Oh<sup>1</sup>

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#### **P2-8**

Characteristics of fermented pineapple extracts according to the types of lactic acid bacteria

Hyun Jin Jeong<sup>1\*</sup>, and Imkyung Oh<sup>1</sup>

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#### **P2-9**

찰쌀가루를 이용한 농산물 건조 부각의 제조 및 품질 특성

하주연<sup>1\*</sup>, 장요셉<sup>1</sup>, 민경태<sup>1</sup>, 홍다현<sup>1</sup>, 강윤한<sup>1,2</sup>  
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#### **P2-10**

딤러닝 이미지 분석 방법을 이용한 홍삼 등급판별

김민현<sup>1\*</sup>, 김지윤<sup>1</sup>, 김정수<sup>1</sup>, 박상혁<sup>1</sup>, 김지혜<sup>1</sup>, 김인선<sup>1</sup>, 남인주<sup>1</sup>, 문광덕<sup>1,2</sup>  
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**P2-11**

Optimization of ultrasound-assisted protease degradation treatment on the extraction of rice bran protein

Sanghyeok Park<sup>1\*</sup>, Jiyeon Kim<sup>1</sup>, Jungsoo Kim<sup>1</sup>, Minhyun Kim<sup>1</sup>,  
Jihye Kim<sup>1</sup>, Insun Kim<sup>1</sup>, Inju Nam<sup>1</sup>, Kwang-Deog Moon<sup>1,2</sup>

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**P2-12**

Effect of Ultrasound on Stability and Quality of Plant-based Rice Milk

Sanghyeok Park<sup>1\*</sup>, Jiyeon Kim<sup>1</sup>, Jungsoo Kim<sup>1</sup>, Minhyun Kim<sup>1</sup>,  
Jihye Kim<sup>1</sup>, Insun Kim<sup>1</sup>, Inju Nam<sup>1</sup>, Kwang-Deog Moon<sup>1,2</sup>

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**P2-13**

Quality characteristics and comparison of microbial community in traditional doenjang by aging period in gangwon province

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Eun-Kyung Yeom, Yoon-Ji Goh, Yun-Mi Ko, Seo-Hyun Yoon

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**P2-14**

Components of Spirits According to Various Distillation Methods

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Study for silkworm larva movement monitoring using image processing

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Korea

**P2-16**

석류 농축액을 활용한 음료 베이스 개발

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**P2-17**

복숭아 퓨레 첨가량에 따른 복숭아 식혜의 품질 특성

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**P2-18**

Physicochemical properties and antioxidant activity of *Hovenia dulcis* fruit vinegar

Wool-Lim Park<sup>1\*</sup>, Ji-An Heo<sup>1</sup>, Jeong-Ho Kim<sup>2</sup>, Hye-Ji Min<sup>1</sup>, Hwi-gon Kim<sup>1</sup> and Kwon-Il Seo<sup>1</sup>

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**P2-19**

Changes of physicochemical properties during lactic acid fermentation of kiwi (*Actinidia deliciosa*)

Hwi-Gon Kim<sup>1\*</sup>, Wool-Lim Park<sup>1</sup>, Hye-Ji Min<sup>1</sup>, Ji-An Heo<sup>1</sup>, Yeong-Seon Won<sup>2</sup> and Kwon-Il Seo<sup>1</sup>

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**P2-20**

Optimization of manufacturing conditions for song-hwa mushroom sausage using response surface methodology

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Gyeongtae Jeong<sup>2</sup>, Gawon Lee<sup>2</sup>, and Daeung Yu<sup>1,2</sup>

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**P2-21**

$\alpha$ -amylase처리가 마젤리 조직감에 미치는 영향

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**P2-22**

매실 절임가공 기계화를 위한 과육 및 설탕 계량 시스템 개발 및 성능 평가

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**P2-23**

섬썩부쟁이 데침시 칼슘처리에 따른 이화학적 품질특성

윤성란<sup>1\*</sup>, 류정아<sup>1</sup>, 장길수<sup>1</sup>, 김선화<sup>2</sup>, 정용진<sup>2</sup>, 권중호<sup>2</sup>

<sup>1</sup>경상북도농업기술원, <sup>2</sup>(주)케이엠에프

**P2-24**

매실 씨제거 및 과육절단 시스템 성능 평가

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**P2-25**

국내 다소비 두류의 조리 전후에 따른 비타민 B2 함량 비교

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경상북도농업기술원

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국내 다소비 곡류 가공품의 비타민 B2 함량 비교

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클로로겐산 함량증진 효소추출 사과 차음료 생산 공정 개발

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**P2-28**

국내 귀리 스낵처리에 따른 팽화귀리의 품질특성 변화

송영은\*, 신소희, 한현아, 이송이, 최소라, 송은주  
전라북도농업기술원

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김영민\*, 김민희, 정유정, 최덕영  
경북대학교 식품공학부

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A Comparative Analysis of Physiochemical Properties of Plant-based Alternative Meat with different Fat Content

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**P2-31**

Radical scavenging activity and quality characteristics of domestic malts made with oats

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Quality characteristics comparison of domestic malt made with two-row barley and foreign malts

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Platform for farmstead dairy processing and the quality characteristics of the dairy products

Sujatha Kandasamy<sup>1</sup> · Jayeon Yoo<sup>1</sup> · Han Byul Kang<sup>1</sup> · Hyoun Wook Kim<sup>1</sup> · Hyung Ho Bae<sup>1</sup> · Jun-Sang Ham<sup>1</sup>

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유현채<sup>1\*</sup>, 김기영<sup>1</sup>, 이아영<sup>1</sup>, 김성완<sup>2</sup>

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울릉도 섬쑥부쟁이의 건조 방법에 따른 품질 특성 비교

김선화<sup>1</sup>, 윤성란<sup>2</sup>, 권중호<sup>1</sup>, 정용진<sup>1\*</sup>

<sup>1</sup>(주)케이엠에프, <sup>2</sup>경상북도농업기술원, <sup>1\*</sup>(주)케이엠에프 및 계명대학교 식품가공학과

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RGB 영상 정보 분석을 통한 바나나의 숙도 및 저온 장해 예측

이다움\*, 이상봉, 김효진, 김상섭, 박기재, 최정희, 임정호

한국식품연구원

**P2-37**

Physicochemical characteristic and sensory evaluation of kimchi containing heat-treated garlic

Eun Hae Kim\*, Mi-Ai Lee, Yun-Jeong Choi, Young Bae Chung, Hye-Young Seo , Sung

Hee Park

World Institute of Kimchi, Gwangju 61755, Korea

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Eun Hae Kim, Min jung Lee, Sung Jin Park, Ji-Hee Yang, Sung Gi Min, Sung Hee Park

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Effect of silkworm powder on viscoelastic and structural properties of corn starch based 3D food printing ink

Eun-Kyung Kim<sup>1,2,3,4\*</sup>, Meiqi Fan<sup>5</sup>, Young-Jin Choi<sup>1,2,3</sup>, Nishala Erandi Wedamulla<sup>1,2,3,6</sup>

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<sup>6</sup>Department of Export Agriculture, Faculty of Animal Science and Export Agriculture, Uva Wellassa University, Badulla 90000, Sri Lanka

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조미 소재 활용을 위한 마늘 페이스트 제조 및 품질특성

지수현\*, 이유석, 이선경, 김표현, 신정엽, 마경철, 이진우  
전남농업기술원 친환경농업연구소

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Comparative physiochemical characteristics between *Kimchi* and *Mukeunji* collected from the southern regions of Korea

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갯 가공품 개발을 위한 데침 처리별 품질특성

지수현\*, 이유석, 이선경, 김표현, 이은실, 마경철, 이진우  
전남농업기술원 친환경농업연구소

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이효영<sup>1\*</sup>, 박기진<sup>1</sup>, 김세원<sup>1</sup>, 문윤기<sup>1</sup>, 이남길<sup>1</sup>, 박기덕<sup>1</sup>, 신동근<sup>1</sup>, 김대진<sup>1</sup>  
<sup>1</sup>강원도농업기술원 산채연구소

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Evaluation of quality characteristics of kimchi seasoning products

Ye-sol Kim\*, Young-Bae Chung, Seo-yeong Chon, Sung-Hee Park, Sung-gi Min, and  
Hye-Young Seo  
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World Institute of Kimchi, Gwangju 61755, Korea

**P2-45**

냉동저장 온도 및 기간에 따른 데친 유채의 품질특성 변화

김표현\*, 이유석, 이선경, 지수현, 이세라, 마경철, 이진우  
전라남도농업기술원 친환경농업연구소

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김치유산균 이용 갈색거저리 유충 분말 첨가 쌀 요구르트 특성

김봉신\*, 김현영, 박여옥, 하기정, 최재혁  
경상남도농업기술원

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Development of a manufacturing method for *Cudrania tricuspidata* tea with increased antioxidant activity

Dong Ho Kim\*, Jeong Been Park, So Young Yang  
*Icheon-si Agricultural Technology Center, Department of Research and Development*

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해동방법을 달리한 냉동 데친 유채의 품질특성 변화

김표현\*, 이유석, 이선경, 지수현, 마경철, 이진우  
전라남도농업기술원 친환경농업연구소

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이선경<sup>1\*</sup>, 이유석<sup>1</sup>, 지수현<sup>1</sup>, 김표현<sup>1</sup>, 강혜원<sup>1</sup>, 임재길<sup>2</sup>, 마경철<sup>1</sup>, 이진우<sup>1</sup>  
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진도 강황 추출조건에 따른 커큐민 함량 및 수율 비교

이유석<sup>1\*</sup>, 이선경<sup>1</sup>, 지수현<sup>1</sup>, 김표현<sup>1</sup>, 조한라<sup>1</sup>, 위지향<sup>2</sup>, 마경철<sup>1</sup>, 이진우<sup>1</sup>  
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강황 소재 첨가량에 따른 강황 발효유 품질 및 관능적 특성

이유석<sup>1\*</sup>, 이선경<sup>1</sup>, 지수현<sup>1</sup>, 김표현<sup>1</sup>, 조한라<sup>1</sup>, 위지향<sup>2</sup>, 문우석<sup>3</sup>, 마경철<sup>1</sup>, 이진우<sup>1</sup>  
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여주 쓴맛 개선을 위한 전처리 및 유산균 발효조건

이유석\*, 이선경, 지수현, 김표현, 김현주, 마경철, 이진우  
전라남도농업기술원 친환경농업연구소

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이효영<sup>1\*</sup>, 임재길<sup>2</sup>, 김세원<sup>1</sup>, 문윤기<sup>1</sup>, 이남길<sup>1</sup>, 박기덕<sup>1</sup>, 박기진<sup>1</sup>  
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<sup>2</sup>강원도농업기술원 농식품연구소

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이유석\*, 이선경, 지수현, 김표현, 이예향, 마경철, 이진우  
전라남도농업기술원 친환경농업연구소

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수분 및 갈변 감소조건별 양파 열풍건조분말의 이화학적특성 비교

이선경\*, 이유석, 지수현, 김표현, 김주현, 윤영애, 마경철, 이진우  
전라남도농업기술원 친환경농업연구소

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양파 건조분말 종류별 품질 및 흡습특성 비교

이선경\*, 이유석, 지수현, 김표현, 김주현, 마경철, 이진우  
전라남도농업기술원 친환경농업연구소

#### P2-57



Physicochemical characteristics of gluten-free vegan scones made of different rice flours

Seong-Hyun Choi<sup>1\*</sup>, Su-Hui Bang<sup>1</sup>, Yeong-Ji Yun<sup>1</sup>, Tae-Yeon Kim<sup>1</sup>, Hye-Jin Park<sup>1</sup>, A-hyeon Kim<sup>2</sup>, Jong-Bang Eun<sup>1,2</sup>

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#### **P2-58**

Quality characteristics of wheat according to drying temperature and drying time

Hoon Kim<sup>1</sup>, Hong Sik Kim<sup>1</sup>, Ah-Na Kim<sup>1</sup>, Ho Rim Jang<sup>1</sup>, Oui Woung Kim<sup>1</sup>, Jae-Woong Han<sup>2</sup>, Su Hyeon Park<sup>1\*</sup>

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<sup>2</sup>Department of SmartFarm Engineering, Kongju National University

#### **P2-59**

Evaluation of protein digestibility by the cooking method of chicken breast using *in vitro* digestion model

Minkyong Kang<sup>1\*</sup>, Juyeon Lee<sup>1</sup>, Jiseon Yoo<sup>1</sup>, Sujeong Lee<sup>1</sup>, Minji Kang<sup>1</sup>, Sangnam Oh<sup>2</sup>

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#### **P2-60**

Chemical properties to determine the freshness of chub mackerel (*Scomber japonicus*) at a fishery products auction house in communal fish market

Eun-Song Kim<sup>1\*</sup>, Ju-Won Ryu<sup>1</sup>, Hyo-Bin Kim<sup>1</sup>, Hye-Min Jang<sup>1</sup>, Jin-Seok Kim<sup>1</sup>, Ju-Chan Kim<sup>1</sup>, Se-Eun Lee<sup>1</sup>, Su-Jeong Lee<sup>2</sup>, Dong-Hui Kim<sup>1</sup>, Kyung Tae Kim<sup>1</sup>, Eun-Woo Lee<sup>2</sup>, Sung-Hwan Eom<sup>1</sup>

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#### **P2-61**

Characteristics of gluten-free muffin made by thermally treated rice flour/protein composite

Duyun Jeong\*

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**P2-62**

3D printing of cellulose microfibrils with locust bean gum

Juhyun Min\*, Yeon Ju Lee, Mariam Omowunmi Aminu and Young Hoon Jung

School of Food Science and Biotechnology, Kyungpook National University, Daegu  
41566, Republic of Korea

**P2-63**

Study on the manufacturing method of soymilk using gyeonggi kidney beans (*Jagang, Heukgang, Yuldu, Sinseondu*)

Jeong Been Park\*, Dong Ho Kim, Moon Hyung Son

Icheon-si Agricultural Technology Center, Department of Research and Development

**P2-64**

비건 스프레드의 제조 및 물리적 특성 평가

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**P2-65**

추출조건별 물리·화학적 특성 및 항산화 활성을 통한 잇바디 돌김 유래 기능성 다당류의 최적 추출조건 확립

임현정<sup>1\*</sup>, 이하늘<sup>2</sup>, 조정용<sup>2</sup>, 김영민<sup>2</sup>

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Thawing quality characteristics of frozen pork according to the vacuum of a 100 L scale tumbler

Won-Ho Hong\*, Jiyeon Chun

Department of Food Science and Technology, Sunchon National University

**P2-67**

Kinetic modeling of dieckol extraction from *Ecklonia cava* by itrasound-assisted

extraction: Comparison of extraction solvents

Gwang-Deok Park<sup>1\*</sup>, Jong-Jin Park<sup>1,2</sup>, Ibukunoluwa Fola Olawuyi<sup>1</sup>, Ha-Seong Cho<sup>1</sup>,  
Yoo-Jin Na<sup>1</sup>, Won Young Lee<sup>1,3</sup>

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## **P2-68**

Quality characteristics of eggless muffins prepared using alternative egg solutions containing super mealworm protein isolate and carrageenan

조하성<sup>1\*</sup>, Ibukunoluwa Fola Olawuyi<sup>1</sup>, 박종진<sup>1,2</sup>, 박광덕<sup>1</sup>, 나유진<sup>1</sup>, 이원영<sup>1,3</sup>

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## **P2-69**

Tailored extraction of okra pectin as a clean-label emulsifier

Ibukunoluwa Fola Olawuyi<sup>1</sup>, Jong-Jin Park<sup>1,2</sup>, Gwang-Deok Park<sup>1</sup>, Ha-Seong Cho<sup>1</sup>,  
Yoo-Jin Na<sup>1</sup>, Won Young Lee<sup>1,3</sup>

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## **P2-70**

Protein enrichment of gluten-free pancakes with corn flour using edible insect protein isolate

Lena Chiamaka Okonkwo<sup>1\*</sup>, Jong-Jin Park<sup>1,2</sup>, Ibukunoluwa Fola Olawuyi<sup>1</sup>,  
Won Young Lee<sup>1,3</sup>

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## **P2-71**

천마를 이용한 어린이용 건강음료의 품질 특성 및 항산화 활성

박소희<sup>1</sup>, 문혜경<sup>2</sup>, 이수원<sup>1</sup>, 김종국<sup>1\*</sup>

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## P2-72

Quality properties and food materials development of *Mycoleptodonoides aitchisonii*

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-Kyung Jeong<sup>1</sup>, Kyeong Won Yun<sup>2</sup>, Kyoung Sun Seo<sup>1\*</sup>

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<sup>2</sup>Department of Oriental Medicine Resources, Suncheon National University, Suncheon  
57922, Republic of Korea

## P2-73

Physical properties by different parts and heat treatments for standardization of the  
quality of production *Lentinula edodes* with smart farm application

Young-Woo Koh<sup>1</sup>, Neul-i Ha<sup>1</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>, Seung-Bin Im<sup>1</sup>,  
Hee-Kyung Jeong<sup>1</sup>, Kyeong Won Yun<sup>2</sup>, Kyoung Sun Seo<sup>1\*</sup>

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<sup>2</sup>Department of Oriental Medicine Resources, Suncheon National University, Suncheon  
57922, Republic of Korea

## P2-74

Effect of Enzymatic Hydrolysis by Crown Flower Plants and Papain Protease on  
Characteristics and Antioxidant Activities of Milkfish (*Chanos chanos Sp*) Protein

Lilik Krisna Mukti<sup>1</sup>, Hey Kyung Moon<sup>2</sup>, Jong Kuk Kim<sup>1</sup>, Woo Won Kang<sup>1</sup>,  
Maryanto<sup>3</sup>, Ardiyan Dwi M<sup>3</sup>, Andrew Setiawan R<sup>3</sup>, Asrul Bahar<sup>4</sup>, Yuli Witono<sup>3\*</sup>

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## 화학/분석

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## P3-1

영지버섯으로 고체발효시킨 꾸지뽕나무 잔가지 (Twig)에서 생물전환 생성물들의 분리 및 구조  
조동정

김대운<sup>1,2\*</sup>, 김종국<sup>1</sup>, 김영희<sup>1</sup>, 김명곤<sup>1</sup>  
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함량 비교

김종국<sup>1,\*</sup>, 김대운<sup>1,2</sup>, 송영은<sup>3</sup>, 김영희<sup>1</sup>, 김명곤<sup>1</sup>  
<sup>1</sup>전북대학교 식품공학과, <sup>2</sup>진안 홍삼연구소, <sup>3</sup>전라북도 농업기술원

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조미현<sup>1\*</sup>, 박민수<sup>1</sup>, 배수빈<sup>1</sup>, 김명현<sup>1</sup>, 김현준<sup>1</sup>, 안소은<sup>1</sup>, 김서홍<sup>2</sup>, 임무혁<sup>1</sup>  
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송시훈<sup>1\*</sup>, 최진혁<sup>1</sup>, 김형균<sup>2</sup>, 정재천<sup>2</sup>, 조정용<sup>1</sup>  
<sup>1</sup>전남대학교 식품공학과  
<sup>2</sup>목포수산식품지원센터

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Jung-A Lee\*, Hong-Jo Park, Hyun-Seo Lee, Je-Eon Kim, Se-Yun Choi,

Su-Been Kim, Ki-Yun Kim, Joon-Goo Lee

Dong-A University Department of Food Biotechnology

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장현준\*, 김호창, 이정희  
대구대학교 식품영양학과

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Yu-Jeong Gwak<sup>1\*</sup>, Jeong Kim<sup>1</sup>, Su-Jin Park<sup>1</sup>, Jiyeon Chun<sup>1</sup>

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57922, Korea

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Detection of glucose, lactic acid, and urea using SWCNT based biosensor

Dong Sup Kim<sup>1</sup>, Chan Yeop Jung<sup>2</sup>, Yun Won Jang<sup>2</sup>, Yoona Shin<sup>2</sup>, Jun-Hyun Oh<sup>2</sup>,  
Jingyoung Lee<sup>1\*</sup>

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유색마 유전자원의 이화학적 특성 분석

최소영<sup>1\*</sup>, 전수경<sup>1</sup>, 임경란<sup>1</sup>, 조신혁<sup>1</sup>, 문광덕<sup>2</sup>

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Determination of vitamin B<sub>1</sub> and B<sub>3</sub> contained in meats and processed meats

Song-Yee Lee\*, So-Ra Choi, Eun-Ju Song, Eun-Ju Kim and Hyun-Ah Han

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### **P3-11**

Development of prediction model for capsaicinoid content of Korean red-pepper powder with various cultivars by near-infrared spectroscopy

Seong Youl Lee\*, Yun-Jeong Choi, Ji-Hee Yang, Young Bae Chung, Sung Gi Min  
World Institute of Kimchi, Gwangju 61755, Korea

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유통 콜라겐 제품 중 중금속 함량 모니터링

김지은\*, 김범호, 김경아, 김대환, 최영주, 강효정, 민지현, 이명진, 오조교  
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최영주, 김범호, 김경아, 김대환, 김지은, 강효정, 민지현, 이명진  
경기도보건환경연구원 보건연구기획팀

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김대환\*, 김범호, 김경아, 김지은, 최영주, 강효정, 민지현, 이명진, 오조교  
경기도보건환경연구원 보건연구기획팀

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백은진\*, 김명길, 김현주, 성진희, 이유진, 곽신혜, 이명진, 오조교  
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양영택\*, 이정민, 문경희, 김유경, 송정흡  
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양영택\*, 이정민, 김유경, 강호준, 송정흡  
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Physicochemical characteristics of yellow ball, a new citrus variety

Seongman Jeong<sup>1\*</sup>, Dong-Shin Kim<sup>2</sup>, Seong-Ho Jo<sup>1</sup>, Sun Lee<sup>1</sup>, Sang-Suk Kim<sup>3</sup>, Hyun-Jin Kim<sup>1,2</sup>

<sup>1</sup>Division of Applied Life Science (BK21 four), <sup>2</sup>Institute of Animal Medicine, Gyeongsang National University

<sup>3</sup>Citrus Research Institute, Rural Development Administration

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Determination of cyanogenic glycosides in home-made maesil-cheong from Korea by LC-MS/MS

Hyunjun Lee<sup>1</sup>, Inhwan Kim<sup>1</sup>, Kwang-Won Lee<sup>2</sup>, Hyun-Seok Kim<sup>3</sup>, Jihyun Lee<sup>1</sup>

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Neul-I Ha<sup>1\*</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>, Young-Woo Koh<sup>1</sup>, Seung-Bin Im<sup>1</sup>,  
Hee-Kyung Jeong<sup>1</sup>, Kyeong Won Yun<sup>2</sup>, Kyoung Sun Seo<sup>1\*</sup>

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Fermentative and functional properties of non-*Saccharomyces cerevisiae* isolated from traditional yeast

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### P4-2

소규모 새싹보리 분말류 가공업체용 디지털 해썹 관리시스템

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<sup>1</sup>국립농업과학원 수확후관리공학과

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김승태\*, 이상엽, 박세진, 이원중, 김성훈  
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Analysis of metagenome and sensory characteristics from korea traditional vinegars

Haram Kong\*, Sun Hee Kim, Joo-Yeon Kim, Woo Soo Jeong, So-Young Kim, Soo-Hwan Yeot  
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Myung-Kon Kim<sup>1</sup>, Tae-Young Kim<sup>2</sup>

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<sup>2</sup>Institute of Jinan Red Ginseng Jinan-Gun, Jeollabuk-Do, Republic of Korea

**P4-6**

Microbial Characterization of Useful Fungi Isolated from Commercial *Nuruk*

Su Jeong Lee\*, So-Young Kim, Soo-Hwan Yeo, Woo Soo Jeong  
*Fermented and Processed Food Science Division, Department of Agrofood Resource,*  
*NIAS, RDA, Jeollabuk-do 55365, Korea*

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Hygienic effect of MA (Modified Atmosphere) film on ginseng sprout packaging

Jinju Park<sup>1\*</sup>, Jangnam Choi<sup>1</sup>, Jihyun Lee<sup>2</sup>, Sosoo Kim<sup>1</sup>, Seulgi Baek<sup>1</sup>, Jayeong Jang<sup>1</sup>,  
Jeomsoon Kim<sup>1</sup>, Theresa Lee<sup>1</sup>

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Ji-Yu Im\*, Chae-Young Kim, Do-Gyung Oh, Chan-Yeong Kim, Jung-Beom Kim  
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Functional characteristics of acetic acid bacteria isolated from farm-made fermented vinegar

Sun Hee Kim\*, Joo-Yeon Kim, Woo Soo Jeong, So Young Kim, Soo-Hwan Yeot

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이채미<sup>1\*</sup>, 최유리<sup>1</sup>, 이동훈<sup>1</sup>, 이채윤<sup>1</sup>, 정재희<sup>1</sup>, 김수환<sup>2</sup>, 허창기<sup>1,2</sup>

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Fermentation of onion extract by lactic acid bacteria enhances its physicochemical properties

Chae-Mi Lee<sup>1</sup>, Yu-ri Choi<sup>1</sup>, Dong-Hun Lee<sup>1</sup>, Chae-Yun Lee<sup>1</sup>, Hyeong-Woo Jo<sup>1</sup>, Won-Hee Lee<sup>1</sup>, Jae-Hee Jeong<sup>1</sup>, Su-Hwan Kim<sup>2</sup>, Chang-Ki Huh<sup>1,2\*</sup>

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Comparison of the quality characteristics by part of sprouted garlic

Yu-ri Choi<sup>1</sup>, Chae-Mi Lee<sup>1</sup>, Dong-Hun Lee<sup>1</sup>, Chae-Yun Lee<sup>1</sup>, Hyeong-Woo Jo<sup>1</sup>,  
Jae-il An<sup>1</sup>, Jae-Hee Jeong<sup>1</sup>, Su-Hwan Kim<sup>2</sup>, Chang-Ki Huh<sup>1,2\*</sup>

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최유리<sup>1\*</sup>, 이채미<sup>1</sup>, 이동훈<sup>1</sup>, 이채윤<sup>1</sup>, 조형우<sup>1</sup>, 안재일<sup>1</sup>, 정재희<sup>1</sup>, 김수환<sup>2</sup>, 허창기<sup>1,2</sup>

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Microbial isolation step 1 for the development of kombucha scoby

Dong Hun Lee<sup>1</sup>, Chae Mi Lee<sup>1</sup>, Yu Ri Choi<sup>1</sup>, Chae Yun Lee<sup>1</sup>, Hyeong Woo Jo<sup>1</sup>,  
Eun Hye Kim<sup>1</sup>, Jae Hee Jeong<sup>1</sup>, Su Hwan Kim<sup>2</sup> and Chang Ki Huh<sup>1,2\*</sup>

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

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Comparison of the antioxidant activity according to ethanol extraction concentration of omija

Chae Yun Lee<sup>1</sup>, Chae Mi Lee<sup>1</sup>, Dong Hun Lee<sup>1</sup>, Yu Ri Choi<sup>1</sup>, Hyeong Woo Jo<sup>1</sup>, Ye Won Lim<sup>1</sup>, Jae Hee Jeong<sup>1</sup>, Su Hwan Kim<sup>2</sup> and Chang Ki Huh<sup>1,2\*</sup>

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

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브로콜리 및 아스파라거스에 대한 각국의 잔류농약 모니터링

박민수<sup>1\*</sup>, 김서홍<sup>2</sup>, 배수빈<sup>1</sup>, 조미현<sup>1</sup>, 김명현<sup>1</sup>, 김현준<sup>1</sup>, 안소은<sup>1</sup>, 임무혁<sup>1</sup>

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UV-C 조사 선량에 따른 신선편이(fresh-cut) 수박의 품질특성

한현아<sup>1\*</sup>, 송은주<sup>1</sup>, 김은주<sup>1</sup>, 이송이<sup>1</sup>, 조승현<sup>1</sup>

<sup>1</sup>전라북도농업기술원

**P4-18**

Characteristics and shelf-life of *Oryza sativa* L. using stabilization-drying process

Eunsu Song<sup>1\*</sup>, Hyeen Gwon<sup>1</sup>, Jaeyoung Choi<sup>1</sup>, Jiyeon Chun<sup>4</sup>, Jinah Hwang<sup>1</sup>

<sup>1</sup>Myongji University, Korea, <sup>2</sup>Suncheon National University, Korea

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곤드레가 포함된 양념을 첨가한 김치의 품질특성

권동진, 오지연\*, 강윤한

강릉원주대학교 생명과학대학 식품가공유통학과

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Physical properties of soybean meal protein isolates prepared from defatted soybean meal

Boyeon Park<sup>1,2</sup>, Sejin Kim<sup>1</sup>, Jaehyun Ahn<sup>1</sup>, Heekyung Han<sup>1</sup>, Jinyi Kang<sup>1</sup>, Boyeon Park<sup>1,2</sup>

<sup>1</sup>*Corporate R&D Center, Bluebio Farm Co., Ltd*

<sup>2</sup>*Department of Food and Nutrition, Yeungnam University*

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Analysis and comparison of microbiome in three types of laver (raw laver, dried laver and seasoned/roasted laver)

Young-Hoon Kim, Min-A Lee, Hee-Won Yoon, Jeong-Pyo Kang  
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*Department of Food Engineering, Mokpo National University, Muan, South Korea,*

**P4-22**

Morphological and physiological characteristics of UV-C irradiated bacteria in drinking water using a water purifier

Min-A Lee<sup>1\*</sup>, Hee-Won Yoon<sup>1</sup>, Ja-Bin Kim<sup>1</sup>, Chang-Joo Lee<sup>2</sup>,  
and Hyun-Joong Kim<sup>1</sup>

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<sup>2</sup>Department of Food Science and Biotechnology, Wonkwang University, Iksan, Jeonbuk,  
Republic of Korea

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Combinatorial effect of slightly acidic electrolyzed water and sodium benzoate against multi-species oral cariogenic biofilm

Xiuqin Chen\*, Pianpian Yan, Chae Rin Park, Kyoung-hee Jo, Eunji Kim,  
and Deog Hwan Oh

Department of Food Science and Biotechnology, College of Agriculture and Life  
Sciences, Kangwon National University, Chuncheon, Gangwon-do, 24341,  
South Korea

**P4-24**

Unveiling the potentials of bioactive oligosaccharide1-kestose (GF2) from *Musa paradisica* Linn peel with an anxiolytic effect based on gut microbiota modulation in stressed mice model

Ramachandran Celliah\*, Eunji Kim, Chaerin Park, Kyoung-hee Jo, Deog Hwan Oh

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Sciences, Kangwon National University, Chuncheon, Gangwon-do, 24341,  
South Korea

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Adherence inhibition of shiga toxin producing (STEC) *Escherichia coli* by non-digestible oligosaccharides derived from *Saccharomyces boulardii* in *Caenorhabditis elegans* gut model

Eunji Kim\*, Ramachandran Celliah, Chaerin Park, Kyoung-hee Jo, Deog Hwan Oh

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**P4-26**

Antimicrobial efficacy of slightly acidic electrolyzed water combined with bay leaf (*Laurus nobilis* L.) essential oil against cariogenic *Candida albicans*, *Streptococcus mutans* biofilms

Kyoung-hee Jo\*, Yan pianpian, Xiquen Chen, Chae-rin Park, Eunji Kim, Ramacahndran Chelliah, Deog-Hwan Oh

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**P4-27**

The use of commercial wine yeast *Saccharomyces cerevisiae* EC1118 for cassava ethanol production at high solids loading by separate hydrolysis & fermentation and simultaneous saccharification & fermentation

Nithnilanch Phachanseesoulath<sup>1,2</sup>, Sejin Geum<sup>2</sup>, Imkyu Han<sup>2</sup>, Yeongmin Kim<sup>2</sup>, Sonmi Kim<sup>2</sup>, Eunseol Kim<sup>2</sup>, Jeongwoo Byun<sup>2</sup>, Soo Rin Kim<sup>2,3</sup>

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<sup>3</sup>Research Institute of Tailored Food Technology, Kyungpook National University

**P4-28**

Quality evaluation of fresh-cut vegetables and fruits purchased from online and offline markets

Sung Ju Cho<sup>2</sup>, Ju Hong Kang<sup>1</sup>, Ji Hyeon Lee<sup>1</sup>, Ji Eun Lee<sup>1</sup>, Rye Gyeong Park<sup>1</sup>, Won Ho Jeong<sup>1</sup>, Jae Won Lee<sup>1</sup>, Il Kwon Bae<sup>3</sup>, and Jae Hak Sohn<sup>12\*</sup>

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#### **P4-29**

Method validation for quantitative analyzing aflatoxin productivity in *Aspergillus* sp. isolated from traditional soybean paste.

Seongeui Yoo\*, JiEon Park, SeoYeon Kwak, Seung-Yeon Baek, Woosoo Jeong, Soo-Hwan Yeo, So-Young Kim  
Department of Agrofood Resources, National Institute of Agriculture Science, RDA, Wanju, 55365, Korea

#### **P4-30**

Immune-modulating effect of *Leuconostoc mesenteroides* K2-4 isolated from radish kimchi

SeoYeon Kwak\*, JiEon Park, Seongeui Yoo, Seung-Yeon Baek, Myeong-Hui Han, Woosoo Jeong, SooHwan Yeo, SoYoung Kim  
Department of Agrofood Resources, National Institute of Agricultural Science, RDA, Wanju, 55365, Korea

#### **P4-31**

Rapid and economical fermentation of shiitake-soy sauce using the cap of *Lentinus edodes*, medicinal herbs and meju powder

Yun-Jin Lee<sup>1</sup>, Deok-Gyeong Kang<sup>1</sup>, Jae-Hoon Jeong<sup>2</sup> and Ho-Yong Sohn<sup>1\*</sup>

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<sup>2</sup>*Gachi-Manduso, The Disabled Enterprise Business Center, Andong, Korea. 36705*

#### **P4-32**

Safety evaluation of *Leuconostoc mesenteroides* K2-1 isolated from the korean radish watery kimchi, Dongchimi

JiEon Park\*, SeoYeon Kwak, Seongeui Yoo, Seung-Yeon Baek, Myeong-Hui Han, Woosoo Jeong, SooHwan Yeo, SoYong Kim  
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Anti-inflammatory effects of heat-killed lactic acid bacteria in LPS-stimulated RAW 264.7 cell

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Anti-stress effects of potential probiotic *Lactococcus lactis* subsp. *cremoris* against corticosterone-induced apoptosis in PC12 cells

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Stability and antibiofilm efficiency of slightly acidic electrolyzed water against mixed-species of *Listeria monocytogenes* and *Staphylococcus aureus*

Pianpian Yan\*, Ramachandran Chelliah, Kyoung-hee Jo, Xiuqin Chen,  
Deog Hwan Oh

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**P4-36**

Diversity and mycotoxin production of fungi isolated from *Meju*

Su-Bin Lim<sup>1\*</sup>, Mi Jeong Lee<sup>1</sup>, So-Young Kim<sup>2</sup>, Jieun Park<sup>2</sup>, Jeoomsun Kim<sup>1</sup>, Theresa Lee<sup>1</sup>,  
Ja Yeong Jang<sup>1</sup>

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**P4-37**

From food to gut: A novel luminescent tagging system to track lactic acid bacteria

In Young Choi\*, Jee-Hwan Oh, Jan Peter van Pijkeren

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**P4-38**

The change of color and pH value of skate muscle during fermentation at different fermentation conditions

A-Hyeon Kim<sup>1\*</sup>, A-Ra Shin<sup>2</sup>, Jong-Bang Eun<sup>1,2\*</sup>

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**P4-39**

Changes in intestinal microbiota according to consumption of cheonggukjang in an IBD animal model

Myeong Seon Ryu<sup>1</sup>, Gwangsu Ha<sup>1</sup>, Ji won Seo<sup>1</sup>, Su Ji Jeong<sup>1</sup>, Hee-Jong Yang<sup>1</sup>,  
Do-Youn Jeong<sup>1\*</sup>

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**P4-40**

Enhanced phytoremediation and biosorption of cationic methylene blue (Acid Blue 93) dye by *Acidomyces acidophilus* ATCC 26774

Jinwon Kim\*, Myeong-Seon Ryu, Hee-Jong Yang, Gwangsu Ha, Su-Ji Jeong, Su-Jin Shin,  
Ho-Jin Jeong, Soo-Young Lee, Do-Youn Jeong\*  
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**P4-41**

Quality characteristics and antimicrobial activity of black raspberry vinegars fermented by various acetic acid bacteria

Eun Hye Ryu, Sung Woong Gim, Ji Wung Kwon\*  
*Berry and Biofood Research Institute*

**P4-42**

Screening of antagonistic bacteria having plant growth-promoting abilities and antifungal activity against phytopathogenic fungi

Ji-Won Seo, Su-Ji Jeong, Jinwon Kim, Myeong Seon Ryu, Se Won Park, Hee-Jong Yang,  
Do-Youn Jeong\*



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**P4-43**

Assessment of potential probiotic properties of lactic acid bacteria isolated from kimchi

Ho Jin Jeong\*, Hee Gun Yang, Se Won Park, Hee-Jong Yang, Do-Youn Jeong  
*Microbial Institute for Fermentation Industry (MIFI), Sunchang 56048, Korea*

**P4-44**

Microbial diversity of representative traditional soy sauce, *Ganjang* in different regions of Korea

Su-Ji Jeong, Gwangsu Ha, Myeong Seon Ryu, JinWon Kim, Su-Jin Shin,  
Hee-Jong Yang, and Do-Youn Jeong\*  
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**P4-45**

Effect of xylan from barley (*Hordeum vulgare*) husk for prebiotic and antibacterial efficacy against multi-drug resistance *Staphylococcus aureus*

Chae Rin Park\*, Kyoung-hee Jo, Eunji Kim, Ramachandran Chelliah, Xiuqin Chen, Pianpian Yan, Deog Hwan Oh  
Department of Food Science and Biotechnology, College of Agriculture and Life Sciences, Kangwon National University, Chuncheon, Gangwon-do, 24341, South Korea

**P4-46**

Microorganisms inactivation strategy after steaming process of rice cakes manufacturing for a small rice cake processing company

Jun-Ha Park<sup>1\*</sup>, Sang-Hyeok Park<sup>1</sup>, Sangha Han<sup>1</sup>, Kye-Hwan Byun<sup>1</sup>, Song-yi Choi<sup>2</sup>, Sang-Do Ha<sup>1</sup>

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**P4-47**

Occurrence of mycotoxigenic fungi and mycotoxins in peanuts during storage

Jung-Hye Choi\*, Ju-Young Nah, Mi-Jeong Lee, Su-Bin Lim, Theresa Lee, Ja Yeong Jang  
and Jeomsoon Kim

Microbial Safety Division, National Institute of Agricultural Sciences

**P4-48**

*Lactobacillus plantarum* GS100에서 유래한 2종의  $\beta$ -glucosidase를 이용한 Rubusoside 생산

안혜수<sup>1\*</sup>, 홍성진<sup>1</sup>, 김영민<sup>1</sup>  
<sup>1</sup>전남대학교 융합식품바이오공학과

**P4-49**

Comparative study on quality characteristics and antioxidant activity of *Glycyrrhiza glabra* fermented with *A. awamori* and *A. luchuensis*

Hee-Won Lee<sup>1\*</sup>, Seul-Ki Park<sup>1</sup>, Sung-Hyen Lee<sup>2</sup>, Bo-Ram Park<sup>1</sup>, Chan-Soon Park<sup>1</sup>, Shin  
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Wanju 55365, Korea

**P4-50**

대체감미료를 이용한 저칼로리 콤부차 제조 및 특성

장다은<sup>1\*</sup>, 이하늘<sup>2</sup>, 홍성진<sup>1</sup>, 정아영<sup>3</sup>, 김영민<sup>2</sup>  
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<sup>3</sup>전남농업기술원 차산업연구소

**P4-51**

Synthesis of TtCITase-C derived glucosyl products from disaccharides by a CITase from  
*Thermoanaerobacter thermocopriae*

Doan Thi Thanh Huyen<sup>1</sup>, Seong-Jin Hong<sup>1</sup>, Bo-Ram Park<sup>2</sup>, Young-Min Kim<sup>1</sup>

<sup>1</sup>Department of Integrative Food, Biocience and Biotechnology, Chonnam National  
University, <sup>2</sup>National Academy of Agricultural Science, Rural Development Administration,  
Republic of Korea

**P4-52**

Isolation and identification of nitrite producing lactic acid bacteria from fermented foods

Sun Ung Jeong<sup>1\*</sup>, Geun Ho Choi,<sup>2</sup> Byeong Jun Ji<sup>3</sup>, Hyun Soo Chun<sup>3</sup>, Dong-Ho Seo<sup>1,2</sup>

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<sup>3</sup>Humanenos LLC, Wanju, 55347, Republic of Korea

#### **P4-53**

Isolation and characterization of *Escherichia coli*-specific bacteriophage for eco-friendly biocontrol agent

Jiyong Kim\*, Su-hyeon Kim, Jaein choe, So-Hui Park, Mi-Kyung Park  
School of Food Science and Biotechnology, Kyungpook National University, Daegu  
41566, Republic of Korea

#### **P4-54**

Manufacturing air-blast dried lactic acid bacteria starter for *Makgeolli* brewing

Chan-Woo Kim<sup>1\*</sup>, Jun-Su Choi<sup>1</sup>, Kyu-Taek Choi<sup>1</sup>, Sae-Byuk Lee<sup>1,2</sup>  
Heui-Dong Park<sup>1,2</sup>

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<sup>2</sup>Institute of Fermentation Biotechnology, Kyungpook National University, Daegu 41566,  
Korea

#### **P4-55**

A comparative study of disinfectants against *Salmonella* Typhimurium on chicken skin and food-contact surfaces

Shamsun Nahar<sup>1</sup>, Ah Jin Cho<sup>1\*</sup>, Eun Her<sup>1</sup>, A.G.M.Sofi Uddin Mahamud<sup>1</sup>, Sang-Do Ha<sup>1</sup>

<sup>1</sup>Department of Food Science and Technology, Chung-Ang University, Anseong,  
Gyeonggi-Do 17546, Republic of Korea

#### **P4-56**

Manifolds of flavourzyme on biofilm formation, quorum sensing, and virulence gene expression of *Pseudomonas aeruginosa*

Shamsun Nahar<sup>1</sup>, Ah Jin Cho<sup>1\*</sup>, Eun Her<sup>1</sup>, A.G.M.Sofi Uddin Mahamud<sup>1</sup>, Sang-Do Ha<sup>1</sup>

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Gyeonggi-Do 17546, Republic of Korea

**P4-57**

농·수·축산물 원재료 중 천연유래 보존료(프로피온산, 안식향산, 소브산)의 검출 및 인정 현황  
분석

최민우<sup>1\*</sup>, 한상하<sup>1</sup>, 김덕현<sup>1</sup>, 박준하<sup>1</sup>, 현석우<sup>1</sup>, 손정원<sup>1</sup>, 하상도<sup>1\*</sup>  
<sup>1</sup>중앙대학교 식품생명공학과

**P4-58**

Characterization and genomic analysis of a lytic phage as a biocontrol strategy against  
*Pectobacterium carotovorum* subsp. *carotovorum*

Ye-Rim Park\*, Su-Hyeon Kim, Hyeju Jung, Mi-Kyung Park  
School of Food Science and Biotechnology, Kyungpook National University, Daegu  
41566, Korea

**P4-59**

Phycocyanin production and antioxidant activity of the heterotrophically cultivated  
*Galdieria sulphuraria* 074G

Young-June kim<sup>1\*</sup>, Jun-Hyun Oh<sup>1</sup>

<sup>1</sup>Department of Plant and Food Sciences, Sangmyung University, Cheonan, Chungnam,  
31066, South Korea

**P4-60**

An in-vitro assessment of the cholesterol-lowering efficacy of potential probiotic  
*Lactobacillus rhamnosus* - Isolated from ginseng sprouts

Enam Ahmed<sup>1,2\*</sup>, Dongha Park<sup>1,2</sup>, Ji-eun Lee<sup>1,2</sup>, Seokmin Kim<sup>3</sup>, Selin Jung<sup>3</sup>, Bokyung Lee<sup>1,2</sup>

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Program, Dong-A University, Busan 49315, Republic of Korea. <sup>3</sup>Department of Food  
Science and Nutrition, Dong-A University, Busan 49315, Republic of Korea

**P4-61**

Change in physicochemical and sensory quality of moromi fermented with different  
*Aspergillus oryzae* strains

Ji-hyun An<sup>1\*</sup>, Quynh-An Nguyen<sup>1</sup>, Dong-Shin Kim<sup>2</sup>, Saoraya Chanmuang<sup>3</sup>, Seung Wha Jo<sup>4</sup>,  
Hyun-Jin Kim<sup>1,2,3</sup>

<sup>1</sup>Division of Applied Life Science (BK21 four), <sup>2</sup>Institute of Animal Medicine, <sup>3</sup>Institute of Agriculture and Life Science, Gyeongsang National University,  
<sup>4</sup>Microbial Institute for Fermentation Industry

#### **P4-62**

Manufacture of fermented *Lentinula edodes* by phytolactic acid bacteria

Hee-Gyeong Jeong<sup>1\*</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>, Young-Woo Koh<sup>1</sup>, Seung-Bin Im<sup>1</sup>,  
Neul-i Ha<sup>1</sup>, Kyeong Won Yun<sup>2</sup>, Kyoung Sun Seo<sup>1\*</sup>

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57922, Republic of Korea

<sup>3</sup>Research engineer, Imsil Cheese & Food Research Institute 55918, Korea,

#### **P4-63**

Evaluation of anti-microbial and anti-inflammatory activities of isolated lactic acid bacteria from agricultural crops on potential vaginal dysbiosis improvement

Dongha Park<sup>1,2\*</sup>, Selin Jung<sup>3</sup>, Ji-eun Lee<sup>1,2</sup>, Bokyung Lee<sup>1,2</sup>

<sup>1</sup>Department of Health Sciences, The Graduate School of Dong-A University, Busan 49315, Republic of Korea, <sup>2</sup>Center for Silver-targeted Biomaterials, Brain Busan 21 Plus Program, Dong-A University, Busan 49315, Republic of Korea, <sup>3</sup>Department of Food Science and Nutrition, Dong-A University, Busan 49315, Republic of Korea

#### **P4-64**

Evaluation of antioxidant and nitrite scavenging activity using lactic acid bacteria metabolites isolated from ginseng sprout

Seokmin Kim<sup>1\*</sup>, Selin Jung<sup>1</sup>, Dongha Park<sup>2,3</sup>, Ji-eun Lee<sup>2,3</sup>, Enam Ahmed<sup>2,3</sup>, Bokyung Lee<sup>2,3</sup>

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#### **P4-65**

Evaluation of preventing inflammatory bowel disease and dysbiosis of gut microbiota with probiotics in DSS-induced colitis mouse model

Ji-eun Lee<sup>1,2\*</sup>, Selin Jung<sup>3</sup>, Dongha Park<sup>1,2</sup>, Seokmin Kim<sup>3</sup>, Bokyung Lee<sup>1,2</sup>

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Program, Dong-A University, Busan 49315, Republic of Korea, <sup>3</sup>Department of Food Science and Nutrition, Dong-A University, Busan 49315, Republic of Korea

#### P4-66

Isolation and characteristics of *P. nalgiovense* SJ02 obtained from korean mudflat for fermented sausage

Sujeong Lee<sup>1\*</sup>, Minkyung Kang<sup>1</sup>, Sangnam Oh<sup>2</sup>

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## 생리활성/영양/기능성

#### P5-1

Enzymatic preparation and antioxidant activities of protein hydrolysates from tuna by-products.

Gyu-Hyeon Park\*, Jeong-Min Lee, Na-young Lim, Syng-Ook Lee

*Department of Food Science and Technology, Keimyung University, Korea*

#### P5-2

A systems biological approach to understanding the mechanisms underlying the therapeutic potential of mugwort and ginger supplements

Kyeong Jin Kim<sup>1</sup>, Yong Dae Kim<sup>2</sup>, So Min Jo<sup>2</sup>, Hyoun Ji Park<sup>2</sup>, Yu Ri Lee<sup>2</sup>, Ji Yeon Kim<sup>1,2</sup>

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#### P5-3

Folic acid and vitamin c content of korea's food according to processing pethod

Jong-Kug Lee<sup>1\*</sup>, Jeong Lee<sup>1</sup>, Yoon-Jeong Cho<sup>1</sup> and Jin-Ju Park<sup>2</sup>.

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<sup>2</sup>Institute of Agricultural Science, Rural Development Administration, Wanju 55365, Korea

#### P5-4

Antioxidant activity and anti-Inflammatory on caco-2 cell line effects of ethanol extract from *Cheonggukjangghan* with blueberry and aronia fermented

Byung-Min Oh<sup>1\*</sup>, Kyung Eun Moon<sup>1</sup>, Ji Heon On<sup>1</sup>, Hyeon Hwa Oh<sup>1</sup>, Young-Soo Kim<sup>1</sup>,  
Geun-Seoup Song<sup>1</sup>

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

#### **P5-5**

Effect of beneficial bacteria and hazardous substances on the functionality of traditional *Soy sauce*

Sowon Jang<sup>1\*</sup>, Hye-Soo Jung<sup>1</sup>, Hee-Jin Kim<sup>1</sup>, Ju-Eun Kang<sup>1</sup>, Ra-Yeon Kim<sup>1</sup>, and  
Geun-Seoup Song<sup>1</sup>

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

#### **P5-6**

Antioxidant activity and anti-Inflammatory effect of ethanol extract from *deonjang* stock with *Perilla Frutescens* leaf

Kyung Eun Moon<sup>1\*</sup>, Byung-Min Oh<sup>1</sup>, So Hyun Park<sup>1</sup>, Joon Gon Kim<sup>1</sup>,  
Hyeon Hwa Oh<sup>1</sup>, Geun-Seoup Song<sup>1</sup>, Young-Soo Kim<sup>1</sup>

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

#### **P5-7**

Analysis of antioxidant activity of functional enhanced silkworm

Jong Woo Park\* and Chang Hoon Lee  
Department of Agricultural Biology, Rural Development Administration

#### **P5-8**

Nutritional compositions in roots, twigs, leaves, fruit pulp, and seeds from pawpaw (*Asimina triloba* [L.] Dunal) grown in Korea

Jin-Sik Nam<sup>1</sup>, Young Ha Rhee<sup>2</sup>, Hye-Lim Jang<sup>3\*</sup>

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<sup>2</sup>Department of Microbiology and Molecular Biology, Chungnam National University,

<sup>3</sup>Department of Food and Nutrition, Dong-eui University

#### **P5-9**

Anti-inflammatory effects of *Marclura tricuspidata* twig sawdust extract fermented with

*Ganoderma lucidum* mycelium in 3T3-L1 adipocyte

Se-Eun Park\*, Hyo-Jeong Lee, Jun-Hui Choi, Ki-Man Kim, Seung Kim  
Department of Health Functional Food, Gwangju University, Gwangju, 61743, Korea

**P5-10**

Anti-oxidant and anti-inflammatory activities of *Mesembryanthemum crystallinum* extract

Se-Eun Park\*, Jun-Hui Choi, Ki-Man Kim, Seung Kim, Hyo-Jeong Lee  
Department of Health Functional Food, Gwangju University, Gwangju, 61743, Korea

**P5-11**

Effects of *Allium ampeloprasum* extract on testosterone synthesis in TM3 Leydig cells

Se-Eun Park\*, Hyo-Jeong Lee, Jun-Hui Choi, Ki-Man Kim, Seung Kim  
Department of Health Functional Food, Gwangju University, Gwangju, 61743, Korea

**P5-12**

Antioxidant, anti-fibrin clotting, and anti-coagulant effect of *Maclura tricuspidata* (Carr.) bur extracts fermented using several forest mushrooms

Jun-Hui Choi\*, Se-Eun Park, Ki-Man Kim, Hyo-Jeong Lee, Seung Kim  
Department of Health Functional Food, Gwangju University

**P5-13**

Intestinal immune-modulating activities of oak *Lentinus edodes* Fermented using *Lactobacillus acidophilus* JMIL-001, *Pediococcus pentosaceus* JMIL-002, *Lactobacillus fermentum* JMIL-003, and *Lactobacillus plantarum* ICFPL-001

Jun-Hui Choi\*, Se-Eun Park, Hyo-Jeong Lee, Seung Kim, Ki-Man Kim  
Department of Health Functional Food, Gwangju University

**P5-14**

에탄올 농도별 커피 추출물의 기능성 탐색

유화영<sup>1\*</sup>, 김현왕<sup>1</sup>, 전현일<sup>1</sup>, 조승화<sup>2</sup>, 송근섭<sup>1</sup>  
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**P5-15**



Phytochemical profile of *Xanthium Strumarium* L. fruit extract and its antioxidant and anti-inflammatory activities

Eunsu Song<sup>1\*</sup>, Jiyeon Chun<sup>2</sup>, Jinah Hwang<sup>1</sup>

<sup>1</sup>Myongji University, Korea, <sup>2</sup>Suncheon National University, Korea

**P5-16**

Antioxidant and anti-aging activity of *Ge-Geo* radish water extracts

Su-Jeong Seo, Chang-Hwan Park, Tae-Gyung Sung, Nam-Woo Kim\*

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**P5-17**

Physiological activity of *Nelumbo nucifera* byproducts mixed extract

Su-Jeong Seo<sup>1</sup>, Tae-Gyung Sung<sup>1</sup>, Ga-Eun Park<sup>2</sup>, Yang-Suk Lee<sup>2\*</sup>

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**P5-18**

Physiological activities of hot water extract from *Phragmites communis* rhizoma as a functional materials

Yang-Suk Lee<sup>1\*</sup>, Jong-Jin Choi<sup>1</sup>, Min-Jung Jang<sup>2</sup>, Nam-Woo Kim<sup>1</sup>

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**P5-19**

A study on the physiological activity of smilacis rhizoma extracts

Yang-Suk Lee<sup>1</sup>, Young-Soon Bang<sup>1</sup>, Min-Jung Jang<sup>2</sup>, Su-Jeong Seo<sup>1\*</sup>

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**P5-20**

Cibotii rhizoma extract attenuates dexamethasone-induced muscle atrophy by regulating the protein turnover in C2C12 cells

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**P5-21**

Ameliorative effects of fermented garlic on autoimmune neurodegenerative disease in cuprizone-induced rat model of multiple sclerosis

Sangar Madhuri, Neeracha Sangpreecha, Doyoung Song, Yang-Kyun Park, Seong-Gook Kang and Kyung-Sik Ham\*  
Department of Food Engineering and Solar Salt Research Center, Mokpo National University, Korea

**P5-22**

Effects of fermented onion on gut health in d-galactose-induced aging rats

Neeracha Sangpreecha, Sangar Madhuri, Doyoung Song, Seoung-Gook Kang, and Kyung-Sik Ham\*  
Department of Food Engineering and Solar Salt Research Center, Mokpo National University, Korea

**P5-23**

Antitussive, expectorant activities and anti-inflammatory effects of *Dendropanax morbifera* leaf extract

Gyu-ok Lee<sup>1</sup>, Jawon Shin<sup>1</sup>, Hye-youn Kim<sup>1</sup>, Cho-Een Kim<sup>1</sup>, Ara Jo<sup>2</sup>, Jin Young Kim<sup>2</sup>, Chulyung Choi<sup>2</sup>, Jaeyong Kim<sup>1\*</sup>  
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<sup>2</sup>Department of Biomedical Science, College of Natural Science, Chosun University

**P5-24**

Antiobesity and hepatoprotective effects of protein hydrolysates from *Protaetia brevitarsis* in high-Fat diet-Induced obese mice

Hyo-Seon Lee<sup>1\*</sup>, Chang-Hwan Jeon<sup>1</sup>, Syng-Ook Lee<sup>1</sup>  
<sup>1</sup>Department of Food science and Technology, Keimyung University, Daegu 42601, Republic of Korea

**P5-25**

In vivo protective effects of lentil (*Lens culinaris*) extract against oxidative stress-Induced hepatotoxicity

Ji-Hyun Park, Hyeon-Ji Yoon, Syng-Ook Lee  
Department of Food science and Technology, Keimyung University, Korea

**P5-26**

Changes in antioxidant activities according to laver heat processing

W. Kim\*, S. Lee, Y.J. Lee, H.J. Kang, J.Y. Kim, K.B. Yoon, H.C. Yang, Y.J. An, D.Y. Jeon  
Jeollanam-do Institute of Health & Environment

**P5-27**

구기자, 산수유, 야관문, 엉겅퀴 및 어성초의 항산화활성 및 항혈전활성

강덕경<sup>1</sup>, 이윤진<sup>1</sup>, 김지민<sup>1</sup>, 김종식<sup>2</sup>, 이만효<sup>3</sup>, 손호용<sup>1\*</sup>  
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**P5-28**

Antioxidant capacity and transcriptome responses of lactic acid bacteria isolated from kimchi

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**P5-29**

A study on the phytoestrogenic effect of black raspberry (*Rubus occidentalis*) extract

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**P5-30**

A study on nutritional value of traditional salt-fermented fish sauces as a natural seasoning

Min-ji Kim\*, Mee-sook Kang, Jong-sin Kim, Sug-chun Lim, Ji-yeon Kang, Hyeon-jeong  
Choi, So-yeon Kim, Ha-eun Lee  
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**P5-31**

4종 홍삼의 항산화 및 항혈전 활성

김지민<sup>1</sup>, 이윤진<sup>1</sup>, 강덕경<sup>1</sup>, 손호용<sup>1\*</sup>  
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**P5-32**

Quality characteristics and antioxidants properties of persimmon (*Diospyros kaki* Thunb.)

leaf tea

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**P5-33**

Screening of plants extracts from gyeongbuk area for antibacterial and anti-inflammatory activity

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**P5-34**

Evaluation of quality properties of plant-based protein material

김혜정(Hyejeong Kim)<sup>1</sup>, 이아영(A-Young Lee)<sup>1</sup>, 문동진(Dong Jin Moon)<sup>1</sup>, 조은주(Eun-Ju Cho)<sup>2</sup>, 이정희 (Jeung-Hee Lee)<sup>2\*</sup>

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**P5-35**

Regulation of blood glucose homeostasis by procyanidin A2 : *in silico*, *in vitro* and *in vivo* analysis

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**P5-36**

Optimization of the extract conditions of *Acacia* species by response surface methodology and assessment of anti-oxidant potential

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**P5-37**

5종 약선 추출물의 항산화 및 항당뇨 활성 비교

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**P5-38**

Antioxidant activity of *Dioscoreae rhizoma*(*Sanyak*) fermented with *Aspergillus awamori* and quality characteristics germinated black rice porridge

Seul-Ki Park<sup>1\*</sup>, Hee-Won Lee<sup>1</sup>, Sung-Hyen Lee<sup>2</sup>, Bo-Ram Park<sup>1</sup>, Chan-Soon Park<sup>1</sup>, Shin Young Park<sup>1</sup>

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**P5-39**

Metabolites profiling of ripe ajwa date pulp (*Phoenix dactylifera* L.) using response surface methodology and artificial neuronal network models

Fanar Alshammari<sup>a,1</sup>, Md Badrul Alam<sup>a,b</sup>, Ahsan Javed<sup>a</sup>, Sunghwan Kim<sup>c\*</sup>, Sang-Han Lee<sup>a,b\*</sup>

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**P5-40**

Optimization of extraction conditions of *Portulaca oleracea* L. extract using RSM, ANN and characterization of bioactive compounds by high-resolution mass spectroscopy

Fanar Alshammari<sup>a</sup>, Md Badrul Alam<sup>a,b</sup>, Ahsan Javed<sup>a</sup>, Sunghwan Kim<sup>c\*</sup>, Sang-Han Lee<sup>a,b\*</sup>

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#### **P5-41**

$\gamma$ -mangostin attenuates UVB-Induced photoaging in HaCaT cells through the inhibition of MAPK / AP-1 / MMP-1 Signaling

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#### **P5-42**

In silico approach to functional ingredients:  
autophagy-enhancing melanogenesis inhibition through the combination of flavonoids

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#### **P5-43**

Physicochemical characteristics of *Spirulina platensis*

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#### **P5-44**

Anti-inflammatory and wound healing effects of analgesic potential using in vivo oral ulcer model of CBG (Cannabigerol)

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**P5-45**

기린초 에탄올 추출물의 기능성에 관한 연구

신승렬<sup>1\*</sup>, 홍주연<sup>1</sup>, 박지혜<sup>2</sup>, 한신규<sup>2</sup>, 임지현<sup>2</sup>, 김민우<sup>2</sup>

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**P5-46**

Nutritional and functional characteristics of three varieies of korean cabbage (*Brassica rapa*. L): korean cabbage (KC), red korean c(RKC) and golden korean cabbage (GKC)

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**P5-47**

Effect of enzymatic hydrolysis by crown flower plants on characteristics and antioxidant activity of milkfish protein

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Maryanto<sup>3</sup>, Ardiyan Dwi M<sup>3</sup>, Andrew Setiawan R<sup>3</sup>, Asrul Bahar<sup>4</sup>, Yuli Witono<sup>3\*</sup>

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**P5-48**

Effect of fermented *Platycodon grandiflorus* extract by lactic acid bacteria on liver protection

Young-Woo Koh<sup>1</sup>, Seung-Bae Park<sup>1</sup>, Kyung-Je Kim<sup>1</sup>, Seong-Woo Jin<sup>1</sup>,

Seung-Bin Im<sup>1</sup>, Neul I Ha<sup>1</sup>, Hee Gyeong Jeong<sup>1</sup>, Kyeong-Won Yun<sup>2</sup>,

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**P5-49**

Ultrasonic pretreatment and enzymatic hydrolysis conditions for preparation of cricket

protein hydrolysate

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**P5-50**

Nutritional compositions of shellfish in the Islands of jeollanam-do

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