

## KNOWLEDGE

### EMAS

| # | Title / Tajuk  | Name of Entry / Nama Peserta    | PTJ | Kod  | Collaborator  |
|---|--|---------------------------------|-----|------|---|
| 1 | Genome-Wide Association Mapping Of Temperature Response In Flowering Time Of Soybean (Glycine Max) | NOOR SYAHIRA<br>BINTI NASARUDIN | HR  | KB17 | Yoshie Hanzawa  |
| 2 | Utilizing The Underutilized: Exploring The Hidden Potential Of Local Rare Fruits                   | LINA BINTI<br>ROZANO            | BT  | KB11 | Erny Sabrina Binti Mohd Noor,<br>Suhaina Binti Supian,<br>Sanimah Bte Simoh |

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|---|--|-------------------------------------|----|------|--|
| 3 | Underutilized Ceri Terengganu : A Novel Resource Of Antiviral                                  | SUHAINA BINTI<br>SUPIAN             | BT | KB09 | Lina Binti Rozano,<br>Chandradevan A/L Machap,<br>Encik Muhamad Aizuddin Bin Ahmad,<br>Sanimah Bte Simoh |
| 4 | Untangling Ecological Complexity Through Multi-Dimensional Insect-Plant Interaction Approaches | SAIFUL ZAIMI BIN<br>JAMIL           | BE | KE02 | Rosliza Binti Jajuli,<br>Leslie Weston,<br>Paul Weston ,<br>Geoff Gurr                                   |
| 5 | Gaps In Halal Certification: Auditors' Perspective Towards SMEs                                | NURSALWATI<br>BINTI ABBAS           | PB | KS19 | Maaruf Abd Ghani   |
| 6 | Technology Adoption Level Among Melon Marketing Agent  | RASMUNA<br>MAZWAN BINTI<br>MUHAMMAD | ES | KS13 | Nor Amna A'liah Binti Mohammad Nor,<br>Mohd Zaffrie Bin Mat Amin,<br>Siti Zahrah Binti Ponari            |

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| 7 | Gold Nanoparticles As A Signal Amplification In The Detection Of Campylobacter Jejuni Using Quartz Crystal Microbalance Sensor | NOOR AZLINA<br>BINTI MASDOR | BT | KB07 | Ibtisam Tohill,<br>Zeynep Altintas  |
| 8 | Combine Harvester Calibration Towards Reducing Paddy Losses  | MOHD TAUFIK BIN<br>AHMAD    | ER | KM04 | Mohd Nadzim Bin Nordin,<br>Mohd Khusairy Bin Khadzir,<br>Mohd Shahmihaizan Bin Mat Jusoh,<br>Mohd Shahril Shah Bin Mohamad Ghazali,<br>Eddy Herman Bin Sharu,<br>Mohammad Aafa Bin Mhd.Bookeri,<br>Mohamed Fauzi Bin Md Isa,<br>Adli Fikri Bin Ahmad Sayuti,<br>Muhammad Haniff Bin Ahmad,<br>Norzailan Bin Zainol,<br>Mohd Hafizudin Bin Mat Riping @ Ariffin,<br>Noraznal Bin Mohd Zainal,<br>Mohd Khairil Izani Bin Ishak, |

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|  |  |  |  | <p>Zawayi Bin Mat,<br/>Mohamad Humaizi Bin Md Jamin,<br/>Arshad Bin Abdul Samad,<br/>Arshad Bin Zakaria,<br/>Roslan Bin Abdul Razak,<br/>Ramlan Bin Ismail,<br/>Mohd. Hashim Bin Aziz,<br/>Norhafizi Bin Mansor,<br/>Azlan Bin Othman,<br/>Mohd Shukry Bin Hassan Basri,<br/>Saifulizan Bin Mat Nor,<br/>Khairul Idzwan Bin Ayub,<br/>Muhammad Shukri Bin Hassan,<br/>Ibrahim Bin Embong,<br/>Bunyamin Bin Abu Kassim,<br/>Mohd Zamri Khairi Bin Abdullah,<br/>Wan Azmi Wan Abdullah,<br/>Ahmad Sukri Saad</p> |
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| 9  | Unveiling The Role Of Mitogen-Activated Protein Kinase (MAPK) Cascade In Papaya For Defense Responses | WEE CHIEN<br>YEONG                   | BT | KB03 | Lina Binti Rozano,<br>Muhammad Hanam Hamid  |
| 10 | Harnessing Indigenous Eggplant For Future Crop  | UMIKALSUM BINTI<br>MOHAMED<br>BAHARI | BE | KC01 | Erny Sabrina Binti Mohd Noor,<br>Puan Aminah Binti Mahmud,<br>Razean Haireen Binti Mohd Razali,<br>Siti Noor Aishikin Binti Abdul Hamid,<br>Nurul Ammar Illani Binti Jaafar,<br>Nurin Izzati Binti Mohd Zulkifli,<br>Nor Asiah Binti Ismail,<br>Umi Kalsum Bt Hussain Zaki,<br>Rasmuna Mazwan Binti Muhammad,<br>Suhana Binti Omar,<br>Rosliza Binti Jajuli,<br>Rozlaily Bt. Zainol |

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| 11 | The Use Of Curcuminoids Extract For Treatment Of Uveitis Disease In Goat Industry | MOHD LIP BIN<br>JABIT | TS | <b>KC36</b> | Mohd Nazrul Hisham Bin Daud,<br>Shanker Ganesh Kanabathy  |
| 12 | Kelulut Honey Pearls: Healthy Stingless Bees Honey Confection                     | CHUA HUN PIN          | FS | <b>KF01</b> | Nicholas Anak Daniel,<br>Suzalyna Binti Mos   |
| 13 | Standard Operating Procedure (SOP) In Reduction Paddy Post Harvest Losses         | AZMAN BIN<br>HAMZAH   | ER | <b>KS04</b> | Mohd Taufik Bin Ahmad,<br>Asnawi Bin Shahar,<br>Yahya Bin Sahari,<br>Wahid Bin Said<br>Hanisa Binti Hosni |

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| 14 | Cross Amplification SSR Markers: A Cost Effective Approach For Fingerprinting Of Understudy Mangifera Species | MOHD SHAHRIL<br>FIRDAUS BIN AB<br>RAZAK | TS | <b>KB16</b> | Khairun Hisam Bin Nasir,<br>Siti Norhayati Binti Ismail,<br>Muhammad Fairuz Bin Mohd Yusof,<br>Zul Helmey Bin Mohamad Sabdin,<br>Muhamad Hafiz Bin Muhamad Hassan,<br>Muhammad Afiq Bin Tajol Ariffin,<br>Mohd Asrul Bin Sani,<br>Nor Helwa Ezzah Nor Azman,<br>Siti Norsaidah Binti Ibrahim@Tamrin |
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**PERAK**

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|---|--|------------------------------------|----|------|---|
| 1 | Sedum: The Best Low-Maintenance Plants For Urban Landscape   | ZULHAZMI BIN SAYUTI                | HR | KC10 | Muhamad Khairulnizam Bin Hamda,<br>Puteri Aminatulhawa Binti Megat Amaddin,<br>Hamdan Bin Mohd Noor |
| 2 | Blood Disease Bacterium: Discovering The Key Virulence Genes And Proteins For Unraveling Its Virulence Mechanism     | RAFIDAH BINTI BADRUN               | BT | KB08 | Norliza Tendot Binti Abu Bakar,<br>Rozeita Binti Laboh,<br>Lina Binti Rozano,<br>Khairulmazmi Ahmad |
| 3 | Benchmarking Of Technological Practices In Malaysia's Small Ruminant Production                                      | NOR AMNA A'LIAH BINTI MOHAMMAD NOR | ES | KS12 | Mohamad Hifzan Bin Rosali,<br>Nurul Huda Binti Sulaiman   |
| 4 | Bioprocessing Strategies To Enhance And Develop The Functionality And Added Value On Generic Fermented Rice Nutrient | MUSAALBAKRI BIN ABDUL MANAN        | BT | KB01 | Koh Soo Peng,<br>Arif Zaidi Bin Jusoh,<br>Siti Khadijah Binti Mahadi,<br>Zalina Binti Zahari        |



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| 5 | Hotspots And Potential Solution For Malaysia Greenhouse Gaseous (GHGs) Emission From Agricultural Sector                             | FAUZI BIN JUMAT                     | BE | KE06 | Mohammad Hariz Bin Abdul Rahman,<br>Nurul Ain Bt Abu Bakar,<br>Shaidatul Azdawiyah Bt Abdul Talib,<br>Mohd Saufi Bin Bastami,<br>Azizi Bin Ahmad Azmin,<br>Mardhati Binti Mohammad,<br>Mohd Fairuz Bin Md Suptian |
| 6 | Simultaneous Multi-Residue Method For Determining Organophosphate And Synthetic Pyrethroid Pesticide In Hempedu Bumi And Dukung Anak | KHAIRATUL<br>AZMAH BINTI<br>MOHAMED | SS | KB18 | Mohammad Shahid Bin Shahrin,<br>Ngan Chai Keong,<br>Nor Ashikin Bt Basirun,<br>Dzolkhifli Omar ,Dr Norida Mazlan  |
| 7 | Manipulation Of Growth And Flowering Of Mexican Petunia (Ruellia Brittoniana) By Using Daminozide                                    | NURHAZWANI<br>BINTI MUSTAFFER       | GB | KC06 | Yahya Awang,<br>Shairul Izan Ramlee   |

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| 8  | Improving Postharvest Storage Life Of Red-Fleshed Pitaya ( <i>Hylocereus Costaricensis</i> ) Fruit By Optimizing The Harvest Maturity, Coating Application And Storage Temperature | NUR AZLIN BINTI RAZALI      | HR | KC16 | Steven A Sargent,<br>Jeffrey K Brecht,<br>Bala Rathinasabapathi,<br>Charles A Sims   |
| 9  | Food Safety: Chemical Migration Packaging To Food Matrix   | MOHD NAZRUL HISHAM BIN DAUD | FS | KF02 | Mohd Lip Bin Jabit,<br>Syarajatul Erma Binti Khalid,<br>Hasnisa Binti Hashim,<br>Hadijah Bte Hassan,<br>Sharizan Bin Ahmad,<br>Nurul Nabilah Binti Mohd Fiteri |
| 10 | Enteric Methane Mitigation Using Fungal Treated Rice Straw   | MOHD AZLAN BIN PAUZI        | AS | KL05 | Liang Juan Boo,<br>Mohamed Arif Omar,<br>Mohammad Faseleh Jahromi  |

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| 11 | Life Cycle Inventory (LCI) In Rice And Its Co-Product Of Near-Neutral Planting Media From Padi Hampa  | MOHAMMAD<br>HARIZ BIN ABDUL<br>RAHMAN | BE | KE05 | Nurul Ain Bt Abu Bakar,<br>Fazlyzan Binti Abdullah,<br>Fauzi Bin Jumat,<br>Mohammad Shahid Bin Shahrin,<br>Shaidatul Azdawiyah Bt Abdul Talib,<br>Azzami Adam Bin Muhamad Mujab,<br>Rahiniza Binti Kamaruzaman,<br>Ariff Merican Bin Din Merican,<br>Chen Sau Soon,<br>Putri Razreena Binti Abdul Raza |
| 12 | Imagej: Non-Destructive Method For Estimation Of Leaf Area Of Okra (Abelmoschus Esculentus L. Moench) | RINA BINTI<br>SINGKINA                | PB | KC24 | Mohd Fadil Bin Mohd Yunus,<br>Mohamed Selamat Madom,<br>Mohammad Mohd. Lasim,<br>Jupikely James Silip  |

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| 13 | Potential Probiotic Characteristics<br>SCOBY For New Fermented<br>Products In Reducing Risk Of<br>Foodborne Illness Incidence | KOH SOO PENG                 | BT | KB10 | Shaiful Adzni Bin Sharifudin,<br>Norhazniza Binti Aziz,<br>Sew Yun Shin,<br>Shazwan Bin Abd Shukor,<br>Rosmawati Binti Abdullah,<br>Nur Syazwani Binti Abdul Hamid,<br>Razali Bin Mirad,<br>Razali Bin Mustaffa,J<br>ohari Bin Sarip<br>Joanna Cho Lee Ying |
| 14 | Elite Accession Of Kantan (Etlingera<br>Elatior)  | NOR ASIAH BINTI<br>ISMAIL    | BE | KE04 | Mohd Rafii Yusop ,<br>Mahmud Tengku Muda Mohamed ,<br>Mohamad Hanafi Musa   |
| 15 | An Intelligent Assessment On<br>Statistical Quality Control<br>Implementation In The Malaysia Food<br>Industry                | MOHD FADIL BIN<br>MOHD YUNUS | SI | KS25 | Rina Binti Singkina,<br>Nurul Syazila Binti Abd Rani,<br>Che Azlan Taib,<br>Rosman Iteng  |

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| 16 | A Study On Microelectrode Design In Developing Sensitive Biosensor For Environmental Monitoring And Agriculture Contaminants | NUR AZURA BINTI<br>MOHD SAID | BT | KB04 | Grégoire Herzog,<br>Karen Twomey,<br>Vladimir I. Ogurtsov  |
| 17 | Reproductive Performance And Morphological Characteristic Of Katjang X Boer Goat   | MOHAMAD HIFZAN<br>BIN ROSALI | AS | KL07 | Mohd Hafiz Bin Abd Wahab,<br>Izuan Bahtiar Bin Ab Jalal,<br>Predith A/L Michael,<br>Muhamad Nasir Bin Jamaludin  |
| 18 | Preliminary Evaluation: New Rice Lines Through Improvement Of Selected Sarawak's Traditional Rice Variety                    | SHAMSUL AMRI<br>BIN SAIDON   | RI | KC29 | Asfaliza Binti Ramli,<br>Shajarutulwardah Binti Mohd Yusob,<br>Rahiniza Binti Kamaruzaman,<br>Mohd Shahril Firdaus Bin Ab Razak,<br>Mohamad Najib Bin Mohd Yusof,<br>Hanisa Binti Hosni,<br>Mohd Saad Bin Hj Damli,<br>Azim Shafiq Bin Ali,<br>Ahmad Shafri Bin A. Rahman, |

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|    |   |                                  |    |             | Zainudin P.M.D. Hussain,<br>Othman Omar, Azmi Man,<br>Rosniyana Ahmad   |
| 19 | A New Approach For Rice Seed<br>Broadcasting  | MOHAMMAD AUFA<br>BIN MHD.BOOKERI | ER | <b>KM11</b> | Mohd Shahril Shah Bin Mohamad Ghazali,<br>Mohd Syaifudin Bin Abdul Rahman,<br>Muhammad Naim Fadzli Bin Abd Rani,<br>Badril Hisham Bin Abu Bakar, Mohd<br>Khusairy Bin Khadzir, Mohamed Fauzi Bin<br>Md Isa, Yuhanawati Binti Mat Yunus, Encik<br>Azlan Bin Othman |
| 20 | Forecasting And Monitoring Of Rice<br>Brown Planthopper In Rice Fields<br>Using Aerial-Net Trap | BADRULHADZA<br>BIN AMZAH         | SS | <b>KC33</b> | Mohammad Shahid Bin Shahrin,<br>Mohd Fitri Bin Masarudin,<br>Razali Bin Baki,<br>Nor Azhar Bin Alias,<br>Ahmad Sabri Bin Che Man  |

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| 21 | Tenggek Burung Shoots (Melico Ptelefolia): Conventional To New Combination And Proper Postharvest Handling Technique | ZAULIA BINTI<br>OTHMAN                 | GB | KF07 | Nur Syafini Binti Ghazali,<br>Azhar Bin Mat Noor @ Mad Noor,<br>Razali Bin Mustaffa,<br>Rozlaily Bt. Zainol,<br>Mohd Kamal Bin Mohd Tajuddin,<br>Mohamad Fikkri Bin Abdul Hamid,<br>Siti Nur Raihan Binti Azmi,<br>Nurul Khadiyah Rusly,<br>Nur Alisha Othman,<br>Suriani Mohd Nor,<br>Nur Izzati Mohsin |
| 22 | Is Malaysia Blooming In The Global Floriculture Trade?   | NIK ROZANA BINTI<br>NIK MOHD<br>MASDEK | ES | KS11 | Chubashini A/P Suntharalingam,<br>Noorlidawati Binti Ab. Halim,<br>Mohd Fairuz Bin Othman  |

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**GANGSA**

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|---|--|--------------------------------|----|------|--|
| 1 | Physiological Responses Of Katjang X Boer F1 Kids On Malaysian Climates  | MOHD AZLAN BIN PAUZI           | AS | KL04 | Mohamad Hifzan Bin Rosali,<br>Mohd Azlan Bin Mohd Salehuddin,<br>Baharin Bin Sukiman,<br>Mohd Bilal Bin Suliman  |
| 2 | Root Culture System: A Potential Alternative For Mass-Production Of High-Value Phytonutrients In Sambung Nyawa | ALIZAH BINTI ZAINAL            | BT | KB05 | Sanimah Bte Simoh,<br>Chandradevan A/L Machap,<br>Indu Bala A/P S. Jaganath,<br>Nurulaishah Binti Yahya,<br>Muhamad Aizuddin Bin Ahmad   |
| 3 | Preliminary Evaluation Of New Advance Line Early Maturing Rice Variety (EMRV) For Yield Improvement            | MOHAMAD BAHAGIA BIN AB GHAFFAR | RI | KC25 | Mazidah Binti Mat,<br>Amirrudin Bin Mokhtar,<br>Muhammad Naim Fadzli Bin Abd Rani,<br>Mohd Shahril Firdaus Bin Ab Razak,<br>Muhammad Fairuz Bin Mohd Yusof,<br>Rosnani Binti Harun |



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| 4 | Value-added Brewers' Rice : A Novel Cosmeceutical Bio Ingredient  | ANISAH BINTI JAMALUDDIN    | BT | KB06 | Nur Yuhasliza Bt Abd Rashid,<br>Dang Lelamurni Binti Abd Razak,<br>Amsal Binti Hj Abd Ghani,<br>Azlina Binti Mansor,<br>Musaalbakri Bin Abdul Manan,<br>Nurul Yuziana Md. Yusof |
| 5 | CO <sub>2</sub> Emission, Energy Consumption And Economy Growth In Malaysia: VECM Analysis From Environmental Kuznets Curve | NIK RAHIMAH BINTI NIK OMAR | ES | KS01 | Abu Hassan Shaari Bin Md Nor  |
| 6 | Maximizing The Extraction Of Local Promising Cultivated Plants To Enhance Anthocyanin Content Of Fruit Nectar               | SAIFUL BAHRI BIN SAARI     | FS | KF03 | Kasmah Binti Mohamad,<br>Suri Bin Roowi,<br>Hadijah Bte Hassan,<br>Rosnah Bt Othman,<br>Arif Zaidi Bin Jusoh,<br>Nor Fadhilah Binti Sapiee,<br>Nur Intan Farina Binti Sawal     |

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| 7 | Incorporation Of N, P And K Into Zeolite As Raw Materials Of Slow Release Fertilizer                | NOR SYAHIDAH<br>BINTI MD SAM             | SS | KC35 | Theeba A/P Manickam,<br>Muhammad Syahren Bin Adzahar,<br>Nor Fadilah Binti Abd. Halim,<br>Muhammad Hazwan Bin Husaimi   |
| 8 | Nutrient Composition And Nutritional Value Of Local Grain Corn Is Comparable To Imported Grain Corn | NORAINI BINTI<br>SAMAT                   | AS | KL02 | Shanmugavelu A/L M Sithambaram,<br>Jame'ah Binti Hamed,<br>Roziatul Erin Binti Abdul Razak,<br>Sarah Bt. Rasol,<br>Rosnizah Binti Ismail,<br>Norham Bin Ishak,<br>Aziah Abdul @Abd Aziz,<br>Hartini Yusuf |
| 9 | Dynamically Controlled Atmosphere (DCA) Storage Technique Double The Storage Life Of Chokanan Mango | WAN MOHD REZA<br>IKWAN BIN WAN<br>HUSSIN | HR | KC13 | Tham See Lin,<br>Encik Mohamad Fikkri Bin Abdul Hamid,<br>Siti Khuzaimah Binti Tarikh   |

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| 10 | A Step Toward Intragenesis:<br>Development Of Gene Expression<br>Cassettes Using Rice-Derived Genes<br>For Sheath Blight Resistance<br>Acquisition | AMIN ASYRAF BIN<br>TAMIZI              | BT | KB12 | Rogayah Binti Sekeli,<br>Nazrul Hisham Bin Nazaruddin,<br>Rohaiza Binti Ahmad Redzuan,<br>Noriha Binti Mat Amin,<br>Sew Yun Shin,<br>Sanimah Bte Simoh |
| 11 | Exploiting Rearing Technique For<br>Rice Stem Borer Research In<br>Malaysia  | NUR ATIQAH BINTI<br>MOHD KHARI         | RI | KC30 | Mohd Fitri Bin Masarudin,<br>Maisarah Binti Mohamad Saad,<br>Dilipkumar A/L Masilamany,<br>Abdul Razak Bin Hashim                                      |
| 12 | Natural Enemies Of Legume Pod<br>Borer, Maruca Vitrata F. (Lepidoptera:<br>Pyralidae) On Long Bean And French<br>Bean In Malaysia                  | FARAH HUDA<br>BINTI SJAFNI<br>SUHERMAN | HR | KC19 | Mohd Hanifah Bin Yahaya,<br>Abu Zarim Bin Ujang,<br>Mohamad Roff Bin Mohd Noor   |
| 13 | Coconut Coir As Potential Oil<br>Absorbent   | NOOR SARINAH<br>BINTI MOHD             | BE | KE03 | Norfarhah Binti Abdul Razak,<br>Fazlyzan Binti Abdullah,   |

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|    |  | NOOR                       |    |      | Tosiah Bt Sadi   |
| 14 | Biological Activities And Potential Of Piper Arborescens : Essential Oil And Crude Extracts                              | NICHOLAS ANAK DANIEL       | FS | KB19 | Chua Hun Pin,<br>Fasihuddin Bin Badruddin Ahmad,<br>Zaini Bin Assim  |
| 15 | The Impact Of MARDI's Technology On Durian Exports To China  | AIMI ATHIRAH BINTI AHMAD   | ES | KS14 | Chubashini A/P Suntharalingam,<br>Suhana Binti Safari,<br>Muhamad Faireal Bin Ahmad,<br>Nor Farhain Sarmin   |
| 16 | Genetic Variability, Coefficient Of Variation And Heritability Estimation Of Floral Traits In Hybrid Rice Parental Lines | RAHINIZA BINTI KAMARUZAMAN | RI | KC32 | Asfaliza Binti Ramli,<br>Thiyagu A/L Devarajan,<br>Mohd Solihen Bin Jamal,<br>Elixon Sunian @ Elixson Bin Sulaiman,<br>Encik Muhammad Naim Fadzli Bin Abd Rani |
| 17 | Nesting Site Preferences By Feral Honey Bees In Disturbed Area Of  | IZATUL LAIL BIN MOHD YASAR | IM | KE09 | Rosliza Binti Jajuli,<br>Mohd Zaffrie Bin Mat Amin,  |

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|    | Peninsular Malaysia  |                                 |    |             | Jafni Bin Johari Jiken,<br>Teoh Chin Chuang,<br>Faizal Bin Kamal, Hamdam Bin Sipon,<br>Zulidzham Bin Mohd Sani   |
| 18 | Is There Hope For The Neglected Kuini?   | NOORLIDAWATI<br>BINTI AB. HALIM | ES | <b>KS06</b> | Nik Rozana Binti Nik Mohd Masdek,<br>Chubashini A/P Suntharalingam   |
| 19 | Economical Value Of Different Weaning Age In Dorper Sheep                                | NORHAYATI BINTI<br>ZAINI        | AS | <b>KL08</b> | Shanmugavelu A/L M Sithambaram,<br>Wan Zahari Mohamed  |
| 20 | Fusarium Fujikuroi: New Discovery Of Pathogen Attacking Flower Buds Of Dendrobium Orchid | NUR ADLIZA BINTI<br>BAHAROM     | HR | <b>KC17</b> | Farah Huda Binti Sjafni Suherman,<br>Farah Zaidat Binti Mohd Nadzri,<br>Wan Rozita Binti Wan Engah,<br>Rozlaily Bt. Zainol,<br>Maizatul Ilyana Binti Rosli |
| 21 | New Coloured Rice Lines - Good Grain Characteristics With Antioxidant Properties         | SHAMSUL AMRI<br>BIN SAIDON      | RI | <b>KC28</b> | Asfaliza Binti Ramli,<br>Shajarutulwardah Binti Mohd Yusob,<br>Rahiniza Binti Kamaruzaman,   |

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|    |  |   |    |      | <p>Mohd Shahril Firdaus Bin Ab Razak,<br/> Hanisa Binti Hosni,<br/> Mohd Saad Bin Hj Damli,<br/> Azim Shafiq Bin Ali,<br/> Nor Sufiah Binti Sebaweh,<br/> Siti Salwah Binti Baba,<br/> Zainudin P.M.D. Hussain,<br/> Othman Omar,<br/> Azmi Man,<br/> Rosniyana Ahmad,<br/> Nik Nurul Fatihah Mohd Noor,<br/> Azzanatul Syuhada Mohd Wahab</p> |
| 22 | <p>Screening Chili (Capsicum Annuum L.) Genotypes Against Cucumber Mosaic Virus And The Inheritance Of CMV Resistance In Chili Genotypes</p> | <p>NORFADZILAH<br/> BINTI AHMAD<br/> FADZIL</p> | HR | KC12 | <p>Mohamad Roff Bin Mohd Noor,<br/> Ghizan Saleh,<br/> Siti Aishah Hassan</p>  |

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| 23 | Discovery Of Monascus Ruber As Potential Food Source For Stingless Bee Larvae | NURUL AMMAR<br>ILLANI BINTI<br>JAAFAR | BE | KE07 | Rosliza Binti Jajuli, Mohd Fahimee Bin Jaapar, Nur Diyana Binti Alyas, Faziah Bt Umar  |
| 24 | Identification On Eggplant Varieties And Its Wild Relatives Using DNA Barcode | ZULHAIRIL BIN<br>ARIFFIN              | BE | KE01 | Maya Izar Binti Khaidizar, Umikalsum Binti Mohamed Bahari, Erny Sabrina Binti Mohd Noor, Aminah Binti Mahmud, Nor Asiah Binti Ismail, Nuradni Binti Hashim |
| 25 | Performance Of Plastic Mulching Machine For Low Land Cabbage Production       | MOHD FAZLY BIN<br>MAIL                | ER | KM08 | Rohazrin Bin Abdul Rani, Farahzety Binti Abdul Mutalib   |

## INNOVATION

### EMAS

| # | Title / Tajuk  | Name of Entry<br>/ Nama Peserta | PTJ | Kod  | Collaborator   |
|---|--|---------------------------------|-----|------|--|
| 1 | Black Ginger (Kaempferia Parviflora)-<br>Based Products: Rich In Natural<br>Ingredient Of Methoxyflavone | SHAZWAN BIN<br>ABD SHUKOR       | BT  | IB01 | Zuraida Binti Ab Rahman,<br>Razali Bin Mirad,<br>Norma Binti Hussin,<br>Chandradevan A/L Machap,<br>Mohd Suhaimi Bin Alias,<br>Ayu Nazreena Binti Othman |



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| 2 | CILI L5: A New High Yielding Chili For Commercial Planting | SUHANA BINTI<br>OMAR | HR | IC04 | Norfadzilah Binti Ahmad Fadzil,<br>Farah Huda Binti Sjafni Suherman,<br>Nur Adliza Binti Baharom,<br>Zaulia Binti Othman,<br>Farahzety Binti Abdul Mutalib,<br>Nur Syafini Binti Ghazali,<br>Juliana Binti Yaakub,<br>Nur Izalin Binti Mohamad Zahari,<br>Rozlaily Bt. Zainol,<br>Mohd Zamri Bin Kamarudin,<br>Mohd Isa Bin Darus,<br>Salmiah Bte Mahnoon |
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| 3 | HY012H - Pioneer Hybrid Rice For Local Industry | ELIXON SUNIAN<br>@ ELIXSON BIN<br>SULAIMAN | RI | IC08 | Asfaliza Binti Ramli,<br>Mohd Solihen Bin Jamal,<br>Rahiniza Binti Kamaruzaman,<br>Thiyagu A/L Devarajan,<br>Muhammad Naim Fadzli Bin Abd Rani,<br>Kogeethavani A/P Ramachandran,<br>Siti Norsuha Binti Misman,<br>Mohd Fitri Bin Masarudin        |
| 4 | MT3 : New Tomato For The Tropics                | NOR HAZLINA<br>BINTI MAT SA'AT             | HR | IC03 | Rozlaily Bt. Zainol,<br>Sharizan Bin Ahmad,<br>Nur Syafini Binti Ghazali,<br>Nur Adliza Binti Baharom,<br>Farah Huda Binti Sjafni Suherman,<br>Rahayu Binti Anang,<br>Zaulia Binti Othman,<br>Sebrina Shahniza Binti Saiin,<br>Salmiah Bte Mahnoon |

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| 5 | New Healthy Beverage: Functional Drink Based On Herb And Spices | NORZALEHA<br>BINTI KASIM | FS | <b>IF04</b> | Hajjah Saniah Binti Kormin,<br>Wan Nur Zahidah Binti Wan Zainon,<br>Syahida Binti Maarof,<br>Muhammad Shah Bin Ali,<br>Noreenyusnita Binti Md Najib<br>Syarajatul Erma Binti Khalid,<br>Mahanom Binti Hussin |
| 9 | Marena: A Hybrid To Boost The Nation Coconut-Based Industries   | AHMAD BIN<br>NGALIM      | SS | <b>IC09</b> | Nubaidillah Bin Omar,<br>Faridah Binti Arifin  |

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**PERAK**

|   |  |                            |    |             |  |
|---|--|----------------------------|----|-------------|--|
| 1 | Mechanized Bepang Kacang Processing Technology For Small Medium Industries | SAIFUL AZWAN<br>BIN AZIZAN | ER | <b>IM06</b> | Azman Bin Hamzah,<br>Asnawi Bin Shahar,<br>Wan Mohd Fariz Bin Wan Azman,<br>Mohd Shahrir Bin Azizan,<br>Mohd Zaimi Bin Zainol Abidin,<br>Mohd Hafiz Bin Mohd Amin Tawakkal,<br>Muhammad Aliq Bin Jamaluddin                                      |
| 2 | Clip & Clamp Advance Technique Of Marcotting                               | JOHARI BIN<br>SARIP        | HR | <b>IC02</b> | Sakinah Binti Idris,<br>Noor Ismawaty Binti Nordin,<br>Mohad Hozzaini Bin Rosman,<br>Mohamad Yusof Bin Hapzah,<br>Izham Bin Aji,<br>Noor Faimah Binti Ghazali,<br>Najah Binti Yahaya,<br>Mohamad Syawali Bin Hamid,<br>Mohd Zamri Bin Kamarudin, |

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|---|--|-------------------------------|----|-------------|--|
|   |  |                               |    |             | Muhammad Aliff Fitri Bin Azali,<br>Mohd Razif Bin Masud  |
| 3 | New Innovation Of Mushroom Fish Sausage                          | NOR SALASIAH<br>BINTI MOHAMED | FS | <b>IF01</b> | Faridah Binti Hussin,<br>Ashadi Bin Yaacob @ Ramli,<br>Rawaida Binti Rusli,<br>Siti Zaharah Binti Hassan,<br>Encik Azizan Bin Yusof                              |
| 4 | Web-Based Least Cost Feed Formulation For Goats And Sheep        | MARINI BINTI<br>AHMAD MARZUKI | FS | <b>IM12</b> | Shanmugavelu A/L M Sithambaram,<br>Zaireen Binti Abdul Rahman,<br>Predith A/L Michael,<br>Mohamad Hifzan Bin Rosali,<br>Hasri Bin Juhari,<br>Rodziah Binti Majid |
| 5 | Tri-Ster Trigona Honey Technology For Mardi Techno Entrepreneurs | HAIRUDDIN BIN<br>MOHD. AMIR   | PB | <b>IM10</b> | Hassan Bin Said,<br>Dr. Badaruzzaman Bin Mohamad Noh,<br>Rosli Bin Mohd. Abu,  |

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|   |  |                               |    |      | Razali Bin Jalaluddin<br>Nurul Khairani Binti Ismail  |
| 6 | Nutritious Fruity Salsa: Low Carb, Fat Free And Rich In Antioxidant                | SAIFUL BAHRI<br>BIN SAARI     | FS | IF03 | Kasmah Binti Mohamad,<br>Mohd Nazrul Hisham Bin Daud,<br>Nur Ilida Binti Mohamad,<br>Rawaida Binti Rusli  |
| 7 | Square Fish Crackers : New Innovation In Crackers Industry                         | NOR SALASIAH<br>BINTI MOHAMED | FS | IF02 | Asnawi Bin Shahr,<br>Mohd Romainor Bin Manshor,<br>Azizan Bin Yusof,<br>Siti Zaharah Binti Hassan,<br>Zulkhairy B. Aminuddin,<br>Mohamad Saifuddin Bin Omar |
| 8 | OTOSIL Plus: An Integrated Silage Packaging System For A Bigger Market Opportunity | GHAZALI BIN<br>HUSSIN         |    | IM13 | Rohazrin Bin Abdul Rani   |

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|---|---|----------------------------------|----|------|---|
| 9 | Sun Loving Orchid For Sustainable Landscape | WAN ROZITA<br>BINTI WAN<br>ENGAH | HR | IC05 | Rozlaily Bt. Zainol,<br>Norhasbulloh Bin Abdullah |
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**GANGSA**

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|---|---|--|----|------|---|
| 1 | Rotary Composter For Mixed Organic Waste    | MOHD FAZLY BIN MAIL                    | ER | IM04 | Sashikala A/P Maruthai Pillai,<br>Intan Nadhirah Binti Masri,<br>Mohd Shahmihaizan Bin Mat Jusoh,<br>Illani Zuraihah Binti Ibrahim  |
| 2 | Sweet Potato Harvester With Vine Pulveriser | MD. AKHIR BIN HAMID                    | ER | IM03 | Zainuddin Bin Zakaria @ Zahari,<br>Aris Bin Abdullah,<br>Saleh Bin Bardos,<br>Mohd Shahmihaizan Bin Mat Jusoh,<br>Zawayi Bin Mat,<br>Norahshekin Binti Abd Rahman,<br>Khairul Idzwan Bin Ayub |
| 3 | Mobile Apps: Myperosakpadi                  | MOHAMAD ZULKIFLY BIN ZAKARIA @ MUSTAFA | IM | IS02 | Badrulhadza Bin Amzah,<br>Mohd Fauzi Bin Mohd Nazeri  |



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| 4 | InRows (Inbred Rice Drilled-Row Spacing Seeding Machine) | MOHD KHUSAIRY<br>BIN KHADZIR                    | ER | <b>IM08</b> | Mohd. Hashim Bin Aziz,<br>Saifulizan Bin Mat Nor,<br>Azlan Bin Othman,<br>Mohd Shahril Shah Bin Mohamad Ghazali,<br>Muhammad Haniff Bin Ahmad,<br>Mohammad Aufa Bin Mhd.Bookeri,<br>Chan Chee Sheng,<br>Mohamed Fauzi Bin Md Isa |
| 5 | Mobile Apps: Myperosakpadi                               | MOHAMAD<br>ZULKIFLY BIN<br>ZAKARIA @<br>MUSTAFA | IM | <b>IS02</b> | Badrulhadza Bin Amzah,<br>Mohd Fauzi Bin Mohd Nazeri   |
| 6 | Rotary Planting Automation System For Urban Residential  | HAFIDHA BINTI<br>AZMON                          | ER | <b>IM05</b> | Mohd Shukry Bin Hassan Basri,<br>Mahidzal Bin Dahari   |
| 7 | Sago Trunk Transporter For Soft Peat Soil                | SARIF HASHIM<br>BIN SARIF                       | ER | <b>IM01</b> | Rohazrin Bin Abdul Rani,<br>Mohd Nadzim Bin Nordin,  |

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|   |  | HASSAN                    |    |      | Noraznal Bin Mohd Zainal   |
| 8 | Adjustable Volume Liquid Gun (AVLG):<br>An Innovation For Efficient Application<br>Of Dieback Buster To Combat Papaya<br>Bacterial Dieback | GANISAN A/L<br>KRISHNEN   | SS | IM11 | Nor Fadilah Binti Abd. Halim,<br>Mohamad Shahir Bin Supian,<br>Dayang Safinah Binti Nayan,<br>Badrulhadza Bin Amzah,<br>Abdul Zalal Bin Mahat,<br>Razali Bin Baki,<br>Nor Hidayah Binti Mohamad Dzani,<br>Zakry Al-Asyraf Bin Abdul Latiff,<br>Rosmizan Bin Abdul Rani,<br>Razali Bin Jalaluddin |
| 9 | Ambeelance : A New Technology For<br>Bee Rescue Operation  | JAFNI BIN JOHARI<br>JIKEN | ER | IE01 | Izatul Lail Bin Mohd Yasar,<br>Teoh Chin Chuang<br>Norahshekin Abd Rahman<br>Hamdan Sipon  |

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|----|--|---------------------|----|------|---|
| 10 | Marena: A Hybrid To Boost The Nation<br>Coconut-Based Industries | AHMAD BIN<br>NGALIM | SS | IC09 | Nubaidillah Bin Omar,<br>Faridah Binti Arifin |
|----|--|---------------------|----|------|---|

## UPSCALING

### EMAS

| # | Title / Tajuk   | Name of Entry / Nama Peserta | PT J | Kod  | Collaborator  |
|---|---|------------------------------|------|------|---|
| 1 | Up-Scaling Of Induced Systemic Resistant (ISR) Eksotika 1 Seedling Technology                       | DR. GANISAN A/L KRISHNEN     | SS   | UB01 | Nor Fadilah Abd. Halim,<br>Hamdan Mohd Noor,<br>Mohd Aziz Rashid,<br>Abdul Zalal Mahat &<br>Nor Hidayah Mohamad Dzani   |
| 2 | Up-Scaling The Production Of Immuno Gold Biosensor Strip For The Detection Of Antibiotic In Poultry | DR. FARIDAH SALAM            | BT   | UB02 | Hazana Razali,<br>Nur Azura Mohd Said,<br>Nurul Hidayah Ahmad Puat,<br>Gayah Abd Rahman,<br>Azima Azmi, Mazlan Mustafa, |

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|  |  |  |  |  | Syah Nur Muhamad Ramli,<br>Marni Sapar &<br>Zamri Ishak |
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|--------------|--|---------------------|----|------|---|
| <b>PERAK</b> |  |                     |    |      |   |
| 5            | Paddy Post Harvest Losses Verification | DR. AZMAN<br>HAMZAH | ER | UC01 | Mohd Taufik Ahmad,<br>Asnawi Shahar,<br>Yahya Sahari,<br>Wahid Said &<br>Hanisa Hosni |