

Año IX, número 11, noviembre de 2023

# Comisión Nacional contra la **Biopiratería**

Autor: Tau'olunga, fecha: 02 de abril de 2017

Imagen: Ilustración de *Xanthosoma sagittifolium* (talo fatua) en Tongatapu, extraída de: [https://upload.wikimedia.org/wikipedia/commons/thumb/c/ca/Xanthosoma\\_sagittifolium.jpg/800px-Xanthosoma\\_sagittifolium.jpg?20074107410837](https://upload.wikimedia.org/wikipedia/commons/thumb/c/ca/Xanthosoma_sagittifolium.jpg/800px-Xanthosoma_sagittifolium.jpg?20074107410837)

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# BIOPAT | PERÚ

**TEMA: OREJA DE ELEFANTE**

## *Xanthosoma sagittifolium*

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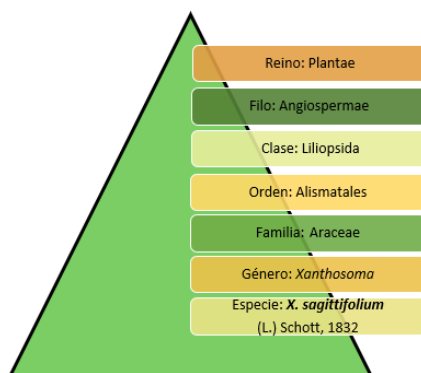
## I. INTRODUCCIÓN

La *Xanthosoma spp.* es originaria de América tropical [Crop Trust; 2010] citado en [Boakye A., et al.; 2018]; probablemente, de América Central y del Sur [Ramanatha, et al.; 2010] citado en [Boakye A., et al.; 2018], donde se cree que la especie fue domesticada en el medio silvestre [Bermejo & León; 1994] citado en [Boakye A., et al.; 2018].

El tallo subterráneo de *Xanthosoma sagittifolium* (conocido como oreja de elefante, ñame o cocoyam) tiene un alto valor nutricional y es utilizado como alternativa de la harina de trigo [Hudi L., et al.; 2023]. Además, su extracto es antioxidante [Nishanthini & Mohan; 2012] citado en [Irsyam A., 2020], analgésico, antiinflamatorio [Noor, et al.; 2015] citado en [Irsyam A., 2020], tiene un efecto hipoglucemiante favorable en pacientes con diabetes tipo II [Handajani, et al.; 2018] citado en [Irsyam A.; 2020] y propiedades antihipertensivas al mejorar el sistema de defensa antioxidante e inhibir la generación de radicales libres [Oridupa O., et al.; 2023].

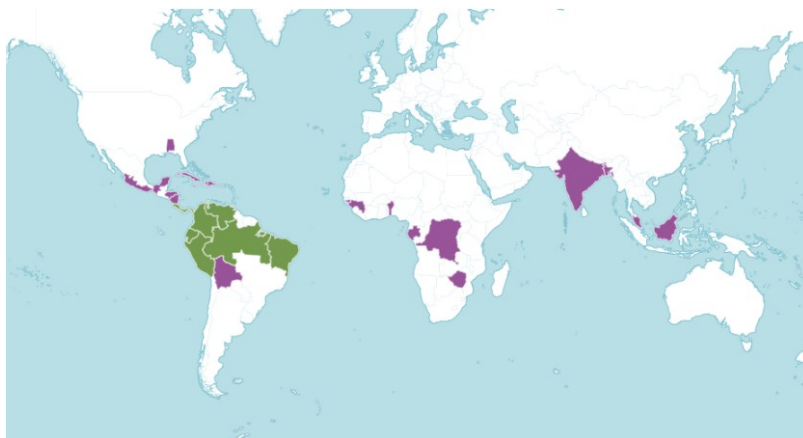
En el caso de la hoja, se ha determinado que el extracto tiene actividad antioxidante [de Souza Araújo et al.; 2019, Rahman et al.; 2019] citado en [Irsyam A.; 2020] y actividad quelante e

### Taxonomía de *Xanthosoma sagittifolium*



inductiva en la apoptosis de células leucémicas [Caxito, et al.; 2015] citado en [Irsyam A.; 2020]. Además, disminuye los niveles de colesterol en sangre y une a los ácidos biliares en ratas [de Almeida Jackix, et al.; 2013] citado en [Irsyam A.; 2020].

### Distribución de *Xanthosoma sagittifolium*



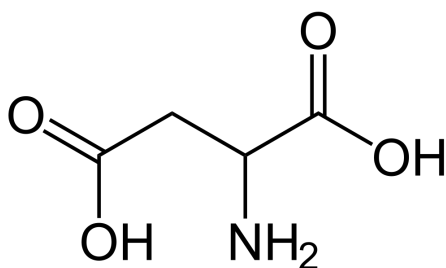
Extraído de: <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:89373-1>

■ Nativo ■ Introducido

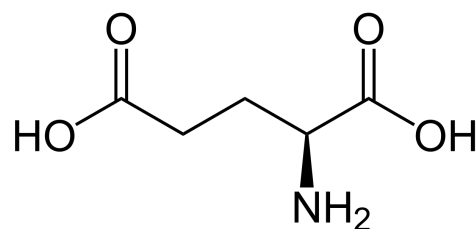
El ñame es nativo de Brasil, Colombia, Costa Rica, Ecuador, Panamá, Perú, Venezuela, pero ha sido introducido en Alabama (EEUU), Bangladesh, Benín, Bolivia, Borneo, Islas Carolinas, Islas Caimán, Isla de Navidad, Islas Cook, Cuba, República Dominicana, Isla de Pascua, Gabón, Galápagos, islas Gilbert, Guinea, Guinea-Bisáu, Golfo de Guinea, Haití, Honduras, India, Jamaica, Islas de Sotavento, archipiélago Malayo, islas Marquesas, sureste de México, suroeste de México, Nicaragua, Niue, Isla Norfolk, Puerto Rico, islas de la Sociedad, Trinidad y Tobago, islas Tuamotu, isla Tubuai, Vanuatu, Antillas Venezolanas, islas de Barlovento, Zaire, Zimbabue [Powo-science].

## II. COMPOSICIÓN QUÍMICA DE LA OREJA DE ELEFANTE

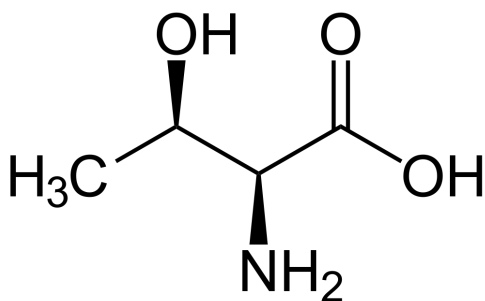
Ácido aspártico



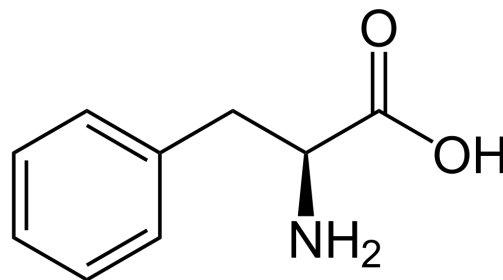
Ácido glutámico



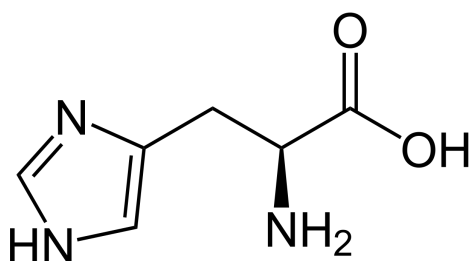
Treonina



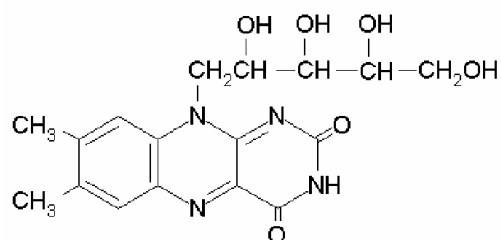
Fenilalanina



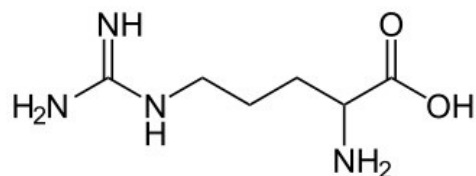
Histidina



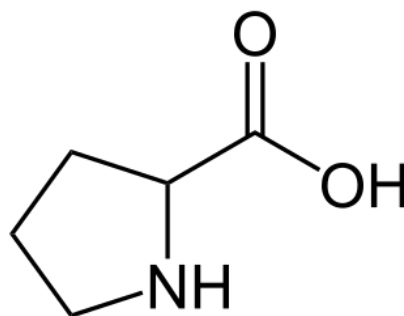
Riboflavina



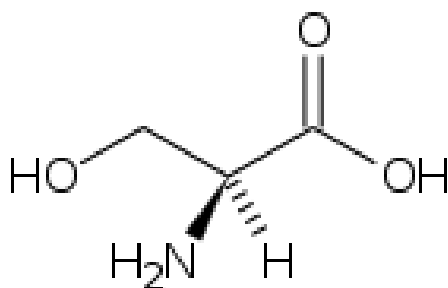
Arginina



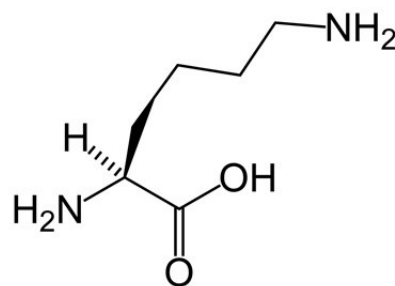
Prolina



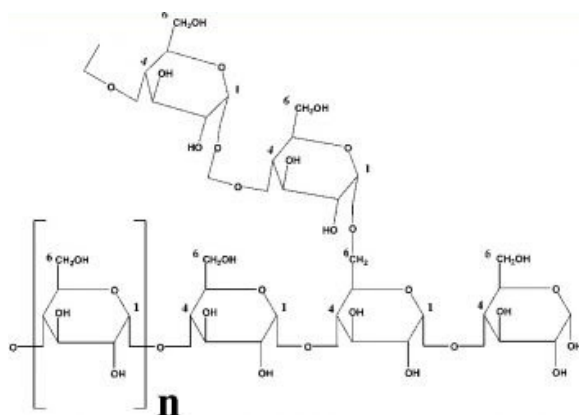
Serina



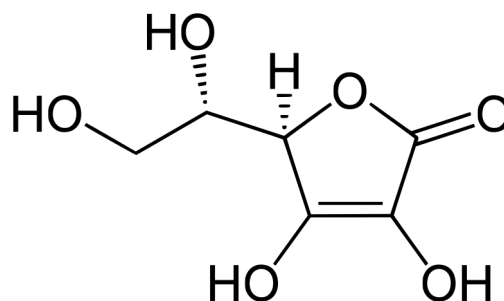
Lisina



Almidón



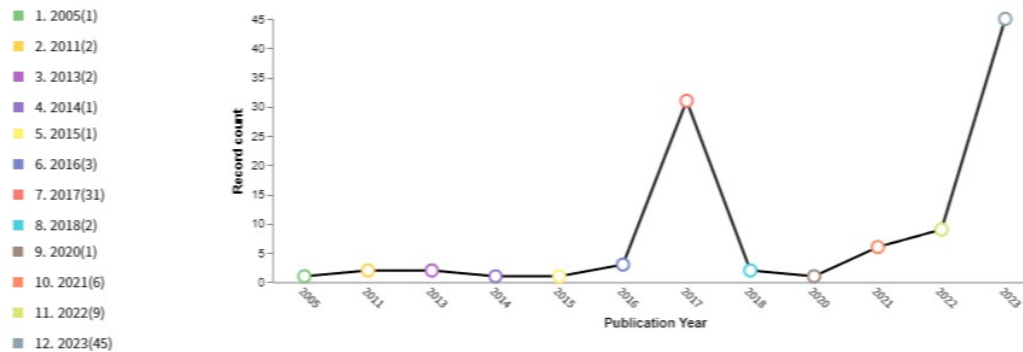
Vitamina C





### III. SOLICITUDES DE PATENTES RELACIONADAS Y ARTÍCULOS

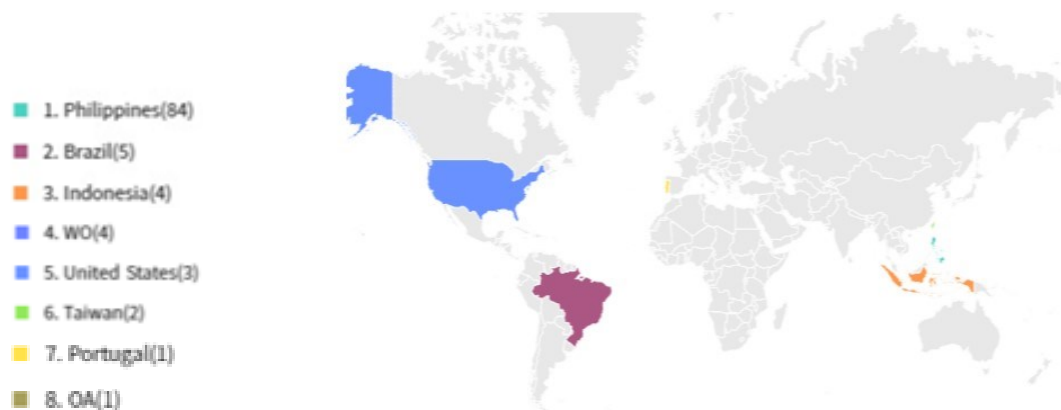
#### A. Publicaciones de patentes por año



Fuente: Clarivate analytics

Este gráfico muestra las solicitudes publicadas a lo largo de los años, siendo la mayor cantidad registrada en el 2023, con 45 publicaciones. Además, en el 2017, la cantidad de publicaciones relacionadas con la *Xanthosoma sagittifolium* ha sido de 31. También se observa que existe una fluctuación de publicaciones en todos los años; sin embargo, dichas cantidades son iguales o superiores a 1 solicitud, desde el 2012.

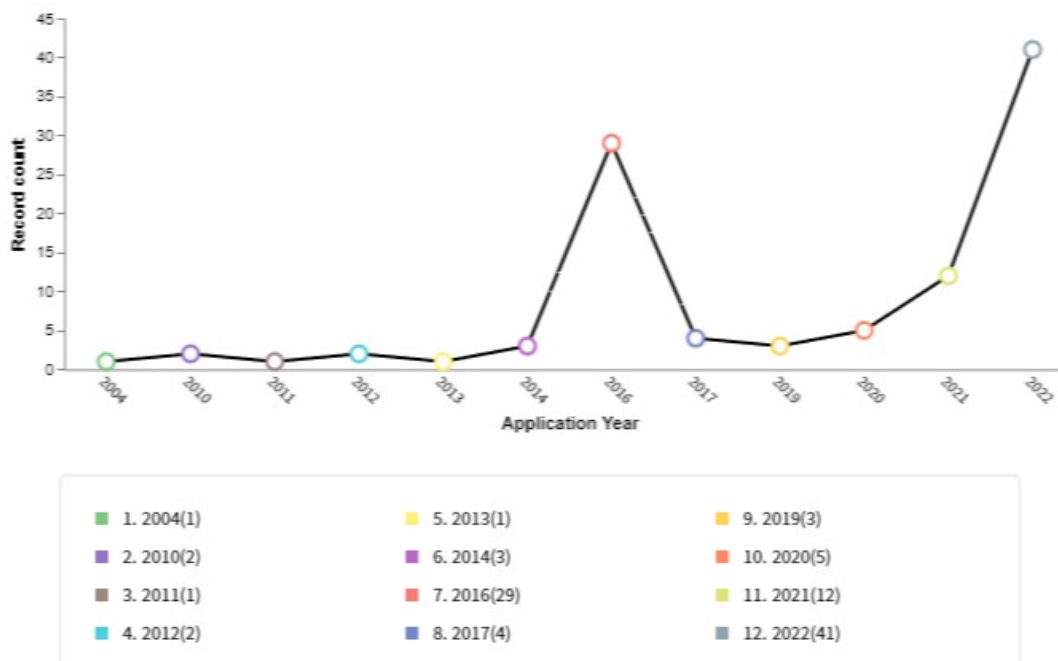
#### B. Países con mayores solicitudes



Fuente: Clarivate analytics

Este gráfico muestra algunos países con solicitudes de patentes relacionadas con la *Xanthosoma sagittifolium*, donde Estados Unidos procede con 3 solicitudes, Filipinas con 84, Indonesia con 4, Taiwan con 2, Portugal con 1, por vía PCT con 4 y en América, Brasil con 5 solicitudes.

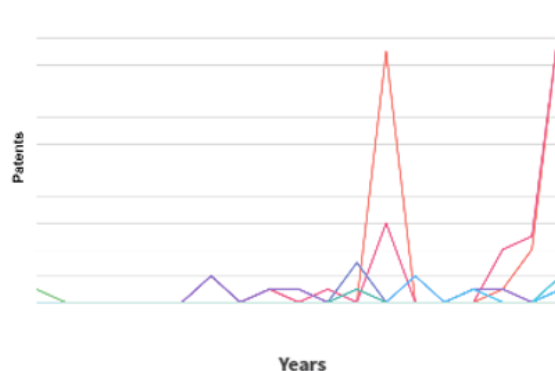
## C. Solicitudes de patentes por año



Fuente: Clarivate analytics

Este gráfico muestra las solicitudes publicadas a lo largo de los años, siendo la mayor cantidad registrada en el 2022, con 41 publicaciones. Además, hasta finales del 2016, la cantidad de publicaciones relacionadas con la *Xanthosoma sagittifolium* ha sido de 29. También se observa que existe una fluctuación de publicaciones en todos los años; sin embargo, dichas cantidades son iguales o superiores a 1 solicitud, desde el 2012.

## D. Tendencias tecnológicas relacionadas con el recurso



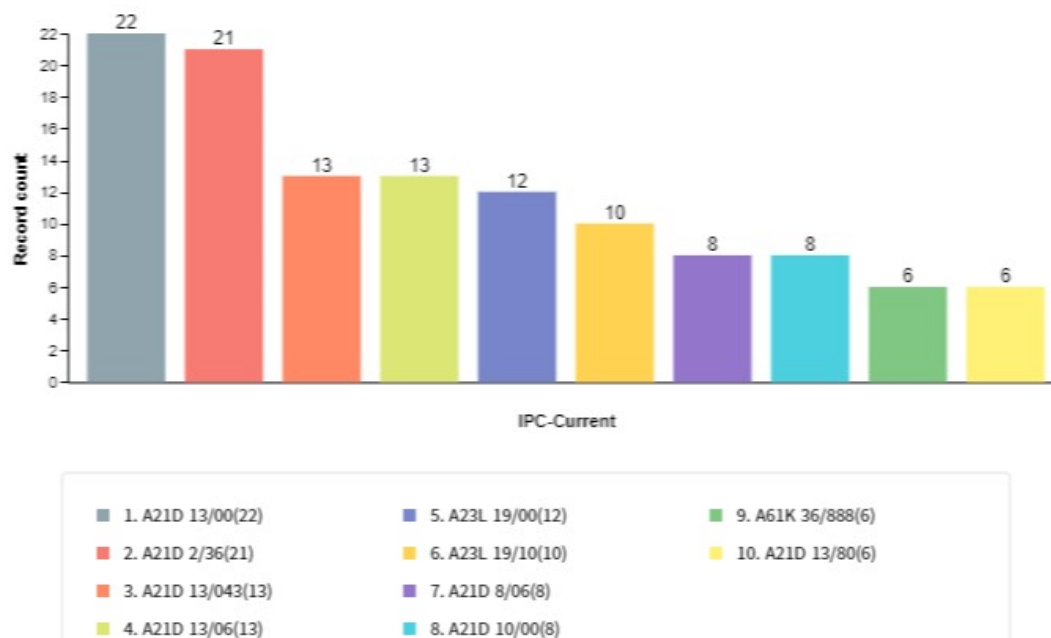
Fuente: Clarivate analytics

Este gráfico muestra las tendencias tecnológicas relacionadas con la oreja de elefante desde el 2004 hasta el 2022, año que logró la mayor diversidad tecnológica con el 81 % de las tecnologías representadas. También se observa que existe una fluctuación de las tecnologías involucradas de los campos farmacéutico y alimentario, en la siguiente leyenda:

- Masa, pan, harina, comida, horneado, panadería, pizza.
- Alimento, extracto, preventivo, bebidas, tratamiento, enfermedad, proteína.
- Tratamiento, cáncer, enfermedad, desorden, administración, preventivo, farmacéutico.
- Tratamiento, cáncer, enfermedad, inhibidor, desorden, prevención, farmacéutico.
- Recubrimiento, resina, lámina, polímero, compuesto, acuoso, partícula.
- Chocolate, confitería, alimento, helado, congelado, azúcar, cacao.
- Filtro, dióxido de carbono, agua, membrana, separación, filtración, líquido.
- Alimento, arroz, carne, polvo, harina, proteína, mezcla.
- Molde, material, tercera dimensión, resina, aditivo, compuesto, formado.
- Planta, variedad, semilla, cultivo de soya, trigo, maíz, proteína.



## E. Clasificación de las solicitudes



Fuente: Clarivate analytics

Las clasificaciones que se observan en la mayor cantidad de solicitudes corresponden a A23L y A21D:

A21D 13/00 Productos de panadería terminados o semielaborados [2017.01].

A21D 13/043 ••de tubérculos, por ejemplo, mandioca o patata [2017.01].

A21D 13/06 •Productos con valor nutritivo modificado, por ejemplo, con contenido de almidón modificado [2017.01].

A21D 13/80 •Productos de pastelería no previstos en otra parte, por ejemplo, pasteles, bizcochos o galletas [2017.01].

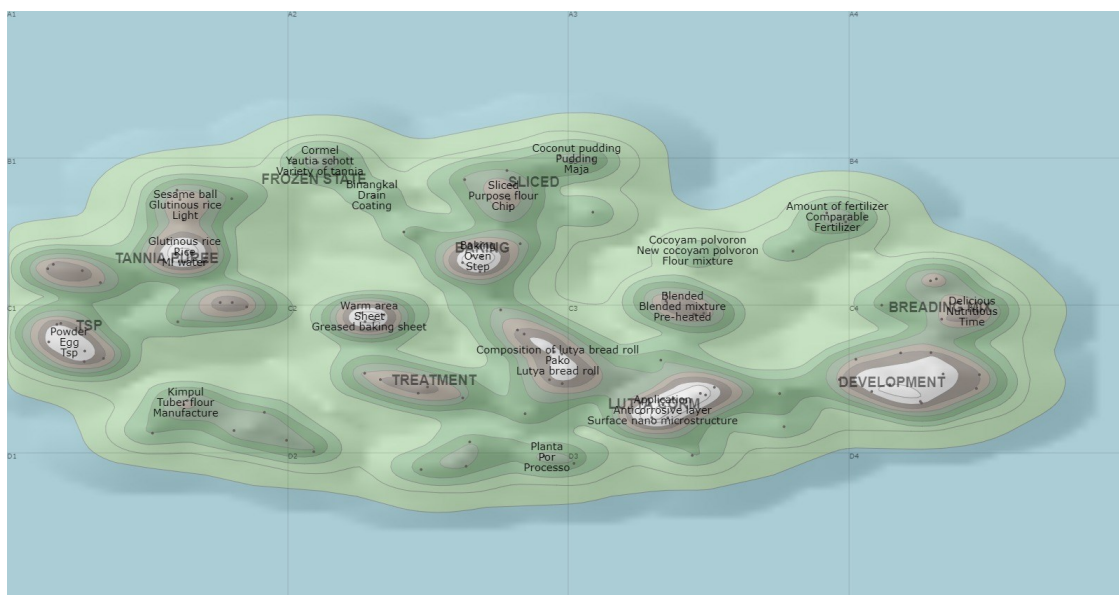
A21D 2/00 Tratamiento de harina o masa mediante la adición de materiales antes o durante la cocción (rebozados, masas o mezclas antes de la cocción A21D 10/00 ) [2006.01].

A21D 2/36 ••Material vegetal [2006.01].

A21D 8/00 Métodos para preparar u hornear masa (tratamiento de harina o masa mediante la adición de materiales A21D 2/00) [2006.01].

- A21D 8/06 •Procesos de horneado [2006.01].
- A21D 10/00 Rebozados, masas o mezclas antes de hornear [2006.01].
- A23L 19/00 Productos de frutas o verduras; preparación o tratamiento de estos productos (mermeladas, confituras, jaleas o similares A23L 21/10; tratamiento de frutas u hortalizas cosechadas a granel A23N ) [2016.01].
- A23L 19/10 •de tubérculos o tubérculos similares que contienen almidón [2016.01].
- A61K 36/00 Preparaciones medicinales de constitución indeterminada que contienen material procedente de algas, líquenes, hongos o plantas , o sus derivados, por ejemplo, hierbas medicinales tradicionales [2006.01].
- A61K 36/888 ••Araceae (familia Arum), por ejemplo, caladio, alcatraz o col mofeta [2006.01]

## F. Tendencias de uso



Fuente: Clarivate analytics

En el siguiente mapa cartográfico sobre la *Xanthosoma sagittifolium*, algunas islas contienen información en los campos agrícola, alimentario, etc., además describen actividades desde la identificación de variedades, tipos de tratamientos en el ámbito alimentario, aplicaciones en el ámbito metalúrgico como anticorrosivo, etc.

## IV. PUBLICACIONES CIENTÍFICAS

Australian Journal of  
Crop Science

AJCS

AJCS 17(8):653-663 (2023)  
doi: 10.21475/ajcs.23.17.08.p3921

ISSN:1835-2707

### Minor root and tuber crops in Africa: Cocoyams (*Colocasia esculenta* and *Xanthosoma sagittifolium*)

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<sup>1</sup>Kenya Agricultural and Livestock Research Organization (KALRO), Kenya

<sup>2</sup>African Centre for Crop Improvement, University of KwaZulu-Natal, College of Agriculture, Engineering and Science, School of Agricultural, Earth and Environmental Sciences, Private Bag X01, Scottsville 3209, Pietermaritzburg, South Africa

#### Abstract

Cocoyams [taro: *Colocasia esculenta* (L.) Schott and tannia: *Xanthosoma sagittifolium* (L.) Schott] are staple tuber crops in many countries in Africa, Asia and the Pacific. This review aims to present the value of cocoyam as a minor tuber crop and the extent and challenges of its production in Africa. Cocoyams are primarily grown for their edible corms or cormels, although other parts, such as stalks, leaves and inflorescence, are used for human consumption. Cocoyams are categorized as neglected food crops mainly grown for subsistence use. Taro is more widely grown than tannia globally. Taro is cultivated all over Africa, although West and Central Africa are the main producing regions. Tannia is mainly grown in West Africa where it is still less common than taro. Production of tannia is generally minimal and rarely appears in cocoyam output statistics for the continent. Africa is the main producer of cocoyam, accounting for over 70% of the global output; the bulk of production occurs in the West and Central African region. Despite the high production, food value and economic opportunities, African cocoyam is rarely sold in the international markets. The crop is cultivated to meet food security at small-scale and family farms. It is mostly consumed and marketed locally in fresh state. Cocoyams are commonly produced by resource-limited smallholder farmers who are mostly women. The crop is cultivated on marginal lands where primitive technologies with little inputs are employed. The crop receives little attention from mainstream research organizations in Africa. Other constraints limiting cocoyam production in Africa include a shortage of planting materials, lack of improved high-yielding cultivars, and paucity of information on the proper agronomic practices, and insect pests and diseases, among others. Industrial use and new product developments of cocoyam in Africa should be explored to enhance the crop's economic value, and by extension attract research attention.

**Keywords:** Africa; Cocoyam; *Colocasia esculenta*; *Tannia*; *Taro*; *Xanthosoma sagittifolium*.

Fuente: [https://www.researchgate.net/profile/Hussein-Shimelis/publication/373652302\\_Minor\\_root\\_and\\_tuber\\_crops\\_in\\_Africa\\_Cocoyams\\_Colocasia\\_esculenta\\_and\\_Xanthosoma\\_sagittifolium/links/64f615184c70687b8ed0f1fd/Minor-root-and-tuber-crops-in-Africa-Cocoyams-Colocasia-esculenta-and-Xanthosoma-sagittifolium.pdf](https://www.researchgate.net/profile/Hussein-Shimelis/publication/373652302_Minor_root_and_tuber_crops_in_Africa_Cocoyams_Colocasia_esculenta_and_Xanthosoma_sagittifolium/links/64f615184c70687b8ed0f1fd/Minor-root-and-tuber-crops-in-Africa-Cocoyams-Colocasia-esculenta-and-Xanthosoma-sagittifolium.pdf)

## REPOSITORIO INSTITUCIONAL

Universidad Mayor de San Andrés



Inicio / Facultad de Ingeniería / Carrera de Ingeniería Química / Proyecto de Grado / Ver ítem

### Aprovechamiento de la walusa (*xanthosoma sagittifolium*) mediante la producción de harina, fécula y chips como productos en la Provincia Sud Yungas de La Paz.



Ver/

PG-8437.pdf (5.443Mb)

Fecha

2023

Autor

Ramos Tola, Cristian

Tutor

Paniagua Luna, Adrián, tutor

Metadatos

Mostrar el registro completo del ítem

El proyecto para aprovechamiento del tubérculo Walusa por medio de la elaboración de Harina, Fécula y Chips, pretende dar a conocer que a partir de la industrialización de la walusa, se puede generar valor agregado de dicho tubérculo, de esta manera aprovechar la riqueza y potencial de la Provincia Sud Yungas, ya que el sector productivo solo ha enfocado sus esfuerzos a la producción de la materia prima para Consumo Local. Inicialmente se elabora la introducción del proyecto, detallando los antecedentes, el planteamiento del problema, justificación, objetivos y de manera continua se desarrolla el marco teórico y metodológico, en el cual se da a conocer los conceptos y teorías que permiten, abordar y desarrollar el proceso productivo. Se propone un Modelo de Planta Procesadora de Harina, Fécula y Chips realizado en Sketchup, de acuerdo a la producción de materia prima disponible en la Región Yungueña, donde se muestra la disposición de los equipos involucrados en la producción. Se considera la etapa de Secado de los chips de Walusa como punto crítico de control en la elaboración de Harina, el Colado y la Sedimentación como puntos de control en la elaboración de Fécula y la dosificación (formulación) para la obtención de los Chips fritos. Los resultados para la formulación óptima de un Chip elaborado a partir de Harina y Fécula de Walusa realizado en Minitab v18, muestran un modelo estadístico y un análisis de varianza para las variables cuantitativas involucradas obteniéndose así, una consistencia adecuada. En cuanto a las características organolépticas de los Chips de Walusa, para los atributos olor, color, sabor y textura de los mismos se logró una aceptación mayor al 70%; obteniéndose un producto que puede ser fácilmente aceptado al ser introducido en el Mercado.

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# CHEMTAG

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Inicio > Vol 4, No 2 (2023) > Rahayu

## MODIFICACIÓN DEL ALMIDÓN DE KIMPUL (*Xanthosoma sagittifolium*) CON HIDRÓLISIS ENZIMÁTICA

Lucia Hermawati Rahayu, Herman Yoseph Sriyana, Lafany Rysha Meliatama

### Sari

*El kimpul (*Xanthosoma sagittifolium*) tiene un alto contenido de almidón natural por lo que tiene potencial como materia prima para elaborar almidón modificado. El almidón natural tiene muchas debilidades por lo que es necesario realizar un proceso de modificación para superar las deficiencias y mejorar su función. En esta investigación se modificó el almidón de kimpul mediante el método de hidrólisis enzimática utilizando brotes de judía verde como fuente de la enzima  $\alpha$ -amilasa. El objetivo de la investigación es determinar las mejores condiciones para la concentración de brotes de judías verdes y el tiempo de incubación basándose en el análisis de los parámetros de prueba, incluido el rendimiento, la capacidad de absorción de agua y la capacidad de hinchamiento del almidón de kimpul modificado. El proceso de modificación enzimática se llevó a cabo incubando almidón de kimpul mezclado con brotes de frijol mungo en diversas concentraciones (20, 25, 30 y 35% del almidón a modificar) a 30°C durante 1, 2 y 3 días. Los resultados de la investigación mostraron que las mejores condiciones se obtuvieron con una concentración de germinación del 35% y un período de incubación de 2 días con un rendimiento del 99,2006%, una capacidad de absorción de agua de 3,58 g/g y una hinchabilidad del 35,14%.*

### Palabras clave

$\alpha$ -amilasa; brotes de frijol mungo; modificación enzimática; pati kempul

### Texto completo:

PDF

Fuente: <http://jurnal.untagsmg.ac.id/index.php/chemtag/article/view/4439>



vol. 38 N° 1 (2023)

## Mejora de la actividad antioxidante e inhibición del daño oxidativo por el fruto de *Lagenaria breviflora* y el corno de *Xanthosoma sagittifolium* en ratas Wistar hipertensas

ARTÍCULOS DE INVESTIGACIÓN COMPLETOS

<https://doi.org/10.54548/njps.v38i1.14>

Publicado 2023-06-30

Olayinka Oridupa \*, Temidayo Olutayo Omobowale \*, Ademola Adetokunbo Oyagbemi \*, Naomi Oghenefega Danjuma \*, Ayobami Deborah Obisesan \*, Tolulope Ademola Olakojo \*, Adebowale Bernard Saba \*

### Abstracto

Las enfermedades cardiovasculares son las principales causas de mortalidad en el mundo hoy en día, siendo la hipertensión la principal presentación clínica de estas enfermedades. Este estudio evaluó los efectos antihipertensivos de la fruta entera de *Lagenaria breviflora* y los cormos de *Xanthosoma sagittifolium* en ratas Wistar hipertensas inducidas experimentalmente. La capacidad de las plantas para mejorar el daño oxidativo que acompaña a la hipertensión se evaluó mediante cambios en los marcadores de estrés oxidativo, así como el seguimiento de los parámetros cardiovasculares. La hipertensión se indujo mediante inyección intraperitoneal de sal DOCA dos veces por semana y la inclusión diaria de NaCl (1%) en el agua potable. Se administraron extractos metanólicos de *L. breviflora* o *X. sagittifolium* a ratas hipertensas durante 35 días y el resultado se comparó con ratas hipertensas a las que se les administró lisinopril o hidroclorotiazida y un grupo de ratas normotensas (control). Las presiones arteriales sistólica, diastólica y media se determinaron el día 34 y se recogió una muestra de sangre el día 35. Posteriormente, las ratas se sacrificaron humanamente y se extrajeron los órganos. Este estudio demostró que los extractos redujeron la presión arterial, las proteínas tioles libres pero aumentaron la proteína total, la glutatión peroxidasa, redujeron el glutatión, la glutatión S-transferasa, la catalasa y el óxido nítrico en el corazón, los riñones y el hígado en comparación con ratas hipertensas no tratadas. Sin embargo, se redujeron los niveles de malondialdehído y las actividades de peróxido de hidrógeno. El fruto de *L. breviflora* y el corno de *X. sagittifolium* exhibieron propiedades antihipertensivas y mejoraron el daño oxidativo asociado con la hipertensión al mejorar el sistema de defensa antioxidante e inhibir la generación de radicales libres.

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NIGERIAN JOURNAL OF  
PHYSIOLOGICAL SCIENCES



### Palabras clave

Hipertensión,  
Estrés oxidativo,  
Antioxidante,  
*Lagenaria breviflora*,  
*Xanthosoma sagittifolium*

Fuente: <https://ojshostng.com/index.php/njphysiologicalsciences/article/view/2631>



## Obtención de almidón de malanga: *Colocasia esculenta* L. y *Xanthosoma sagittifolium* L, mediante la aplicación de tres métodos químicos

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**Palabras clave:** malanga, almidón, decantación, centrifugación

### Resumen

La malanga (*Colocasia esculenta* L.), debido a su acelerado desarrollo vegetativo y sencilla propagación, se ha convertido en uno de los principales cultivos de las zonas tropicales del Ecuador. Gracias a sus propiedades bioquímicas y su alto valor nutricional ha permitido aplicar tecnologías sencillas para aprovechar este recurso agrícola en la obtención de almidón para la utilización en diferentes alimentos. El objetivo de esta investigación fue obtener almidón a partir de dos variedades de malanga *Colocasia esculenta* L y *Xanthosoma sagittifolium* L, mediante la aplicación de tres métodos químicos (ácido cítrico, ácido clorhídrico, ácido fosfórico), en el cual finalmente se realizó un proceso de decantación y centrifugación. Se aplicó un ANOVA, con diseño de bloques completamente al azar mediante arreglo factorial A\*B\*C, obteniéndose un total de 12 tratamientos y 3 repeticiones. Se estableció las diferencias estadísticas entre las medias de los tratamientos con la prueba de Tukey ( $P>0,05$ ). Se obtuvo un mayor rendimiento en el tratamiento Malanga Blanca + Centrifugación + Ácido cítrico 29,34%, en lo que corresponde a la acidez y pH, los valores se encontraron dentro de lo establecido por trabajos similares, el porcentaje de fibra más elevado se presentó en el tratamiento Malanga lila + Decantación + Ácido fosfórico (0,68%), mientras que la humedad se encuentra dentro de los parámetros permitidos de la INEN 616, la cual señala un 14% y una temperatura de gelatinización óptima en el tratamiento Malanga blanca + Decantación + Ácido fosfórico (56,53°C).



**MALANGA: *Colocasia esculenta* (L.) Schott**

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## Food Science &amp; Nutrition

Open Access

REVISAR

 Acceso  
Abierto**Utilización del cocoyam ( *Xanthosoma sagittifolium* ) para la seguridad alimentaria y nutricional: una revisión**Abena A. Boakye , Faustina Dufie Wireko-Manu, Ibok Oduro, William O Ellis, María Gudjónsdóttir, Ioannis S. ChronakisPublicado por primera vez: 13 de marzo de 2018 | <https://doi.org/10.1002/fsn3.602> | Citas: 28 SECCIONES PDF

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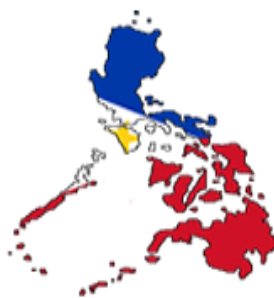
**Abstracto**

El papel fundamental de los cultivos autóctonos en el crecimiento socioeconómico de los países en desarrollo ha requerido llamados para acelerar la explotación de productos básicos. La cocoyam, *Xanthosoma sagittifolium*, es el alimento de más de 400 millones de personas en todo el mundo y es la aroide más consumida en África occidental. Sin embargo, sigue siendo un recurso alimentario subexplotado. Este estudio revisa la literatura existente y también utiliza datos primarios de entrevistas con agricultores, procesadores, consumidores y científicos indígenas de la cocoyam en los institutos de investigación de Ghana, para proporcionar información sobre la nomenclatura existente de la especie, el conocimiento indígena sobre los usos alimentarios y nutricionales, valor y posibles nuevas aplicaciones alimentarias de la cocoyam. También se discuten tecnologías adaptables de conformidad con las nuevas tendencias en la ciencia de los alimentos que podrían emplearse para estudios moleculares en profundidad y una mayor explotación del cultivo. Se prevé que la información proporcionada contribuya a los esfuerzos globales destinados a explotar todo el potencial de los cultivos autóctonos para la seguridad alimentaria y nutricional sostenible.

Fuente: <https://onlinelibrary.wiley.com/doi/full/10.1002/fsn3.602>

## V. TECNOLOGÍA ASOCIADA

COMPOSICIÓN DE PAN DE LUTYA (*Xanthosoma sagittifolium*) CON PAKO (*Diplazium esculentum*)



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INVENTORES	LODEVICO DOMINGO P [PH]; BARBOSA GINA B [PH]; AMOROSO VICTOR B [PH]; MÉNDEZ RAINEAR A [PH]; MOLINA IMIE LYN [PH]; ASER CHRISTINE MAE A [PH]; VILLALOBOS ANNABELLE [PH]
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### RESUMEN

Este modelo de utilidad divulga la composición de un panecillo utilizando harina de lutya (*Xanthosoma sagittifolium*) y helecho pako (*Diplazium esculentum*) como sustituto de la harina comercial. Este panecillo consta de 20,30 por ciento de harina lutya, 4,65 por ciento de muestra de helecho fresco (pako), 35,38 por ciento de harina para todo uso, 1,74 por ciento de mantequilla, 11,60 por ciento de azúcar, 3,71 por ciento de huevo, 0,87 por ciento de sal, 21,46 por ciento de leche evaporada y 0,29 por ciento. extracto de vainilla.

PROCESO DE PREPARACIÓN DE PATOS FRITAS A PARTIR DE CORMELOS VARIEDAD  
BLANCA Y MORADA DE TANNIA/YAUTIA (*Xanthosoma sagittifolium* (L) Schott)

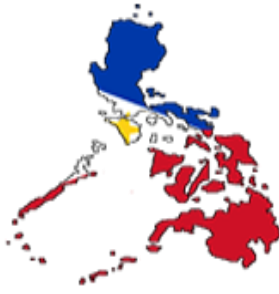


Nº DE PUBLICACIÓN	PH22020000409
FECHA DE PUBLICACIÓN	2021-05-24
INVENTORES	BLASE MA EDELWINA M [PH]
SOLICITANTE	COLEGIO ESTATAL DE MARINDUQUE [PH]

## RESUMEN

El presente modelo de utilidad se refiere al proceso de elaboración de “palitos de papas fritas” a partir de cormelos variedad blanca y morada de Tannia/Yautia (*Xanthosoma sagittifolium* (L) Schott). El proceso consta de lavar, emparejar, cortar en palitos, escaldar, escurrir, secar, envasar y almacenar en estado congelado si no se va a cocinar fácilmente y se puede conservar durante al menos seis meses.

## MÉTODO DE PRODUCCIÓN DE HELADO DE RAÍCES DE TANNIA (*Xanthosoma sagittifolium*)



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FECHA DE PUBLICACIÓN	2018-01-03
INVENTORES	CARI AN DAISY G [PH]
SOLICITANTE	COLEGIO ESTATAL CARLOS HILADO MEMORIAL [PH]

### RESUMEN

El presente modelo de utilidad describe un método para producir helado hecho de pescado y raíz de tania (*Xanthosoma sagittifolium*) que ha demostrado ser nutritivo y proporciona beneficios para la salud de los consumidores. El modelo de utilidad divulga un helado con riesgos mínimos de contraer diabetes.

PROCESO DE ELABORACIÓN DE MERMELADA DE TANNIA (*Xanthosoma sagittifolium*) Y CAMOTE (*Ipomoea batatas*)



Nº DE PUBLICACIÓN	PH22017000003
FECHA DE PUBLICACIÓN	2017-02-01
INVENTORES	RITA HIDALGO [PH]
SOLICITANTE	COLEGIO ESTATAL APAYAO [PH]

## RESUMEN

Este modelo de utilidad se relaciona con el proceso de elaboración de mermelada de camote (*Ipomoea batatas*) siguiendo un sencillo procedimiento que generalmente implica licuar camote y tannia por separado; mezclando 681 gramos de puré de camote y 340.5 gramos de puré de tannia del paso (a), 177 ml de agua, 201 gramos de azúcar refinada, 76 gramos de margarina, 1 cucharadita de sal y 235 ml de leche evaporada; y cocinar la mezcla a fuego medio hasta que espese.



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PH22022051331U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) BANANA CAKE

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model discloses the formulation of new cocoyam (*Xanthosoma sagittifolium* (L) Schott) and Banana (Musaceae) cake. Banana is a favorite fruit dessert and known for its aroma and sweetness. It is rich in vitamins and minerals such as potassium, pectin, fiber, magnesium, vitamin C, B6 and antioxidants. Bananas are consumed raw or added as flavor in any pastry products such as banana cake- a moist, sweet and nutritious baked item made with mashed banana. New Cocoyam also known as "Bisol", "Karlant" or "Takudo" in eatser Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making banana cake is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers

Publication Date

27/09/2023

Publication Number

PH22022051324U1

Title

FORMULATION OF NEW COCOYAM (*xanthosoma sagittifolium* (L) Schott) MUFFIN

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model discloses the formulation of new cocoyam (*Xanthosoma sagittifolium* (L)

Schott) muffin. Muffin is a small domed cake or quick bread made from batter or dough. In making muffin, you can also add some fruit jams on it or any flavor you want, like chocolate, carrot, hazelnut etc. On the other hand, New Cocoyam also known as Bisol", "Karlant or Takudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals carbohydrates, fiber and starch. Incorporating bisol in making muffins is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

Publication Date

27/09/2023

Publication Number

PH22022051321U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) SQUASH BREAD

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model discloses the process of producing newcocoyam (*Xanthosoma sagittifolium* (L.) Schott) squash bread. A new cocoyam squash bread comprising the steps of combining the dry ingredients namely allpurpose flour, new cocoyam flour, baking soda, and salt in a small bowl, mixing the sugar, egg, oil, water and squash meat using hand mixer, pouring the wet mixture into the dry ingredients and mixing until well combined, putting and scraping the fillings into the half portion of the dough, folding the dough into two, making stripes and braiding the dough then rolling to form a loaf, putting the rolled braided dough in the greased pan and rest for 30 minutes, preheating the oven at 180-degree Celsius, baking for 45 minutes.

Publication Date

6/09/2023

Publication Number

PH22022051323U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) MUFFIN

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model discloses the process of producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) comprising steps washing new cocoyam with water; steaming the said new cocoyam until cooked; peeling the cooked new cocoyam and slicing it into chips to favor drying; sun drying of the sliced new cocoyam on a fine mesh or canvass for 3-5 days or until the weight of the dried sliced cocoyam is 30% of the cooked new cocoyam; using a Wiley Mill with a 10-mm mesh, a new cocoyam was ground after drying to achieve a uniform size of the new cocoyam flour; combining the all-purpose flour, new cocoyam flour, baking powder, baking soda, and salt in a mixing bowl; mixing the white sugar, melted butter, water, eggs, and vanilla in another mixing bowl using hand mixer; pouring the flour mixture into the wet mixture and mix thoroughly until well combined; preheating the oven at 325°F. pouring the new cocoyam muffin batter into muffin paper cups and placing them on a greased muffin pan; placing the muffin pan into the preheated oven and baking the new cocoyam muffin for 20 minutes; removing muffin pan from the oven

Publication Date

30/08/2023

Publication Number

PH22022051320U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) PIAZA

Applicant

Cebu Technological University - Argao Campus,PH

Abstract

The present utility model discloses the formulation of producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) hopia. Hopia has a flaky, crust and soft, sweet filling which is usually made of bean paste. It is a popular commodity which comes in various flavors such as mung bean, pork, purple yam and many more. On the other hand, New Cocoyam also known as "Bisol Karlang" or "Takudo" in eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more cobs filled with vitamins and minerals, carbohydrates, fiber and starch.

Incorporating bisol in making pandesal is a welcome development which introduces versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

Publication Date

16/08/2023

Publication Number

PH22022051327U1

Title

PROCESS OF PRODUCING CASSAVA CAKE WITH NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott)

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model is a process of producing new cocoyam and cassava (*Manihot esculenta* Crantz) cake comprising the steps of peeling cassava roots, rinsing in running water, grating the cassava roots, squeezing lightly the grated cassava to remove excess liquid, preheating oven to 180° C, greasing the baking pan with butter, combining all the ingredients and mix thoroughly until sugar dissolves, pour mixture into the greased baking pan, baking for 45 minutes to 1 hour, removing from oven and pouring the remaining condensed milk and sprinkling grated cheese on top, returning to oven and baking for another 2 minutes, removing from oven and serve.

Publication Date

16/08/2023

Publication Number

PH22022051290U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) CHOCO MOIST CAKE

## Applicant

Cebu Technological University - Argao Campus,PH

## Abstract

The present utility model is a process of producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) choco moist cake comprising the steps of preheating the oven, greasing a baking pan, mixing together the dry ingredients in a large bowl of standing mixer, adding eggs, evaporated milk melted butter, vanilla and beat until smooth, removing bowl from the mixer pouring the batter in the greased baking pan and baking for about 35 minutes allowing the cake to cool for 15 minutes, running a butter knife around edges of the cake and placing wire cooling rack over top of the pan, flipping the cake over onto the rack, setting the rack down and gently thumping on the bottom of pan until cake is released, and letting it cool completely before handling or frosting.

## Publication Date

16/08/2023

## Publication Number

PH22022051286U1

## Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) CHOCO MOIST CAKE

## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

This utility model relates to a gas barrier laminate having excellent gas barrier property even under high humidity. A gas barrier laminate at least comprising a gas barrier film and a heat seal layer laminated thereon; wherein the gas barrier film includes: a plastic substrate (I) including a metal compound in a content of 0.2 to 12% by mass, and a gas barrier layer (II) including polycarboxylic acid; and the oxygen permeability in an atmosphere of 20°C and a relative humidity of 65% to be 50 ml/(m<sup>2</sup>·dayMPa) or less, and the haze is 50% or lower.

## Publication Date

15/08/2023

Publication Number

ID202306217A

Title

PRODUCTION PROCESS OF MEAT ANALOGUE SUBSTITUTION OF UMBI KIMPU (*xanthosoma sagittifolium*) FLOUR USING A SINGLE SCREW EXTRUDER

Applicant

Universitas Jember, Jalan Kalimantan No. 37, Kampus Tegalboto, Jember 68121, ID

Abstract

Making analog meat substituted with tuber tuber flour using a single screw extruder that can provide an intensive stirring effect. The manufacture of analog meat begins with the production of kimpul flour in the order of peeling, slicing, soaking in salt solution, draining, drying to obtain dry kimpul chips which are then milled and sieved. The kimpul flour obtained is then mixed with soy protein isolate and then added water. The dough obtained is then put into a single screw extruder made of stainless steel rods:  $L/D$  (length to diameter) 15, where the compression ratio value used is 2.5. Compression ratio is the ratio of the pitch pitch of the thread in the feeding zone compared to the metering zone. Thread feeding zone length = 150 mm, compression zone length = 150 mm, metering zone length = 150 mm, thread pitch width is 10 mm and thread diameter = 30 mm. The mold at the end of the thread is a hole with a diameter of 2.5 – 3 mm. The extrudate is then boiled and dried. The present invention produces meat analogues with good chemical, physical and functional characteristics. The addition of kimpul flour can have the effect of reducing triglyceride and cholesterol levels in test animals. So that this invention produces high protein products, which can be applied as a substitute for meat in meatballs, sausages and nuggets products which have the effect of reducing triglyceride and cholesterol levels.

Publication Date

21/07/2023

Publication Number

PH22022051282U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) PIAYA

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS, PH



## Abstract

The present utility model signifies the process of producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) piaya comprising the steps of washing cocoyam with water, steaming the said cocoyam until cooked, peeling the cooked cocoyam and slicing it into chips to favor drying, sun drying of the sliced cocoyam on a fine mesh or canvass for 3-5 days or until the weight of the dried sliced cocoyam is about 30% of the cooked cocoyam, after drying, grinding the cocoyam using Wiley-mill with 10-mm mesh to have uniform size of the cocoyam flour, combining ingredients for new cocoyam piaya namely; all- purpose flour, new cocoyam flour, salt, and vegetable oil, pinching with your fingers until it forms into a crumb, adding water at a time and forming into a dough, placing the dough on a clean board and kneading it until smooth, dividing the dough into equal portions, covering the dough with plastic wrap. chill and set aside, combining muscovado sugar, new cocoyam flour, vegetable oil, and water for the filling using a wooden ladle, mixing the mixture to make it smooth and evenly moist, filling in the piaya by flattening the dough using a rolling pin; forming into small circles around 3 inches in diameter, placing the filling in the center of the dough and spread; folding the dough by the edges to endlose, flattening the filled dough using a rolling pin for about 3 inches in diameter; cooking in a preheated pan for 6 minutes until golden brown.

## Publication Date

3/07/2023

## Publication Number

PH22022051295U1

## Title

PROCESS OF PRODUCING NEW COCOYAM (*xanthosoma sagittifolium* (L) Schott) CARMEL CUSTARD MILK FLAN

## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

The present utility model is a process of producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) caramel custard (leche flan) comprising the steps of washing the new cocoyam, steaming until cooked, peeling and slicing into chips, sun drying, homogenizing using a blender, mixing the new cocoyam flour with the caramel custard ingredients, pouring the caramel custard mix into a mold with a thin layer of caramel at the bottom, covering the mold with aluminum foil, putting the mold into the steamer, and transferring the hot caramel custard into a container so the caramel layer is on top before serving.

Publication Date

3/07/2023

Publication Number

PH22022051289U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) BANANA CAKE

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model is a process of producing using new cocoyam (*Xanthosoma sagittifolium* (L) Schott) flour and banana (Musaceae) cake comprising the steps and Banana (Musaceae) cake comprising the steps of mashing the ripe bananas, preheating the oven, greasing and flouring the baking pan, mixing the mashed banana with lemon juice in a small bowl and set aside, mixing the dry ingredients.

Publication Date

21/06/2023

Publication Number

PH22022051329U1

Title

FORMULATION OF NEW COCOYAM (*xanthosoma sagittifolium* (L) Schott) BREAD ROLL (PANDESAL)

Applicant

Cebu Technological University - Argao Campus,PH

Abstract

The present utility model identifies the formulation of New cocoyam (*Xanthosoma sagittifolium* (L) Schott) pandesal. Pandesal also known as salt bread is a famous go-to bread in the Philippines. It is a soft, fluffy, chewy sweet-salty bread which is considered a daily staple during breakfast time. it is also

eaten as snacks paired with jams, spreads or even meat. On the other hand, New Cocoyam also known as "Bispl", "Karlant" or "Takudo" in eastern Visayas is a fast growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making pandesal is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

Publication Date

21/06/2023

Publication Number

PH22022051326U1

Title

PROCESS OF PRODUCING PANDESAL (BREAD ROLLS) USING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) FLOUR

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model is a process of producing pandesal using new cocoyam flour comprising the steps of whisking first the dry ingredients in a bowl, then beating together the liquid ingredients such as melted butter, egg, cooking oil and fully dissolved yeast-sugar-milk mixture, mixing in one direction again until a dough is formed, kneading the dough until the texture becomes fine and molding it until the dough becomes round then putting back in the mixing bowl to let it rise for at least an hour. Afterwards, dividing the dough into four (4) equal parts using a dough slicer, rolling each part to form a cylindrical shape and slicing it to have the individual pieces of the pandesal. Next is rolling over the dough over breadcrumbs, placing it in a baking tray with wax paper and leaving it to rise, pre-heating the oven and putting the tray with dough, and finally baking until the dough is cooked.

Publication Date

7/06/2023

Publication Number

PH22022051287U1

## Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L.) Schott) MINDANAO CINNAMON ROLL

## Applicant

CCEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

The present utility model is a process of producing New Cocoyam (*Xanthosoma sagittifolium* (L.) Schott) and Mindanao cinnamon (*Cinnamomum mindanaense*, Elmer) roll comprising the steps of greasing the loaf pan, mixing yeast and warm water, adding dry and wet ingredients to yeast mixture, mixing the mixture using a dough hook, kneading the dough until becomes elastic and smooth, placing the dough in a greased bowl and greasing the top, covering the dough with dish towel, letting it rise in a warm place, turning the dough onto a lightly floured surface and roll into a rectangle, stirring filling ingredients, spreading the filling over the dough and pressing it to stick, rolling up in lengthwise and pinching the ream to seal, cutting down the middle of the roll using a sharp knife, leaving on end attached, twisting the bread, placing into the pan and tucking the ends, letting the dough rise for about 20 minutes, preheating oven to 180°C, baking for 3035 minutes, letting the loaf cool in the pan, removing the loaf pan and serve.

## Publication Date

7/06/2023

## Publication Number

PH22022051300U1

## Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium*) CARROT (Daucus carota, L.) CAKE

## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

The presents utility model discloses a process for producing a new cocoyam and carrot cake. Carrot, known for its nutritional value, is combined with cocoyam to create a cake that offers enhanced taste and improved nutrition. The cake is prepared using washed and grated medium-sized carrots, which are then caramelized with white sugar. Dry ingredients such as all-purpose flour, salt, baking soda, baking

powder, and dry yeast are mixed together in a separate bowl. In another bowl, eggs, vegetable oil, new cocoyam flour, caramelized carrots, and vanilla are combined. The dry mixture is gradually incorporated into the wet mixture using an electric mixer until the desired consistency is achieved. The resulting batter is poured into a greased baking pan and baked in a preheated oven. After cooling, the cake is ready to be served, offering a nutritious and flavorful treat to consumers.

Publication Date

7/06/2023

Publication Number

PH22022051299U1

Title

FORMULATION OF NEW COCOYAM (*xanthosoma sagittifolium* (L.) Schott) CARROT (*Daucus carota* L.) CAKE

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model identifies the formulation of new cocoyam (*Xanthosoma sagittifolium* (L.) Schott) and carrot (*Daucus carota* L.) cake. Carrot is a rich source of vitamins and minerals like A, K and C and also a good source of dietary fiber and several carotenoids and B-carotene. It is processed into several products such as carrot cake; a common and favorite dessert popularly added with spices and frostings. On the other hand, new cocoyam also known as 'Bisol', Karlang or Tacudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, and fiber. The development of new cocoyam carrot cake is a welcome development which promotes better taste and nutrition. This product also encourages consumption and increases the economic potential of new cocoyam and carrot.

Publication Date

7/06/2023

Publication Number

PH22022051298U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) CASSAVA CAKE

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model discloses the formulation of New cocoyam (*Xanthosoma sagittifolium* (L) Schott) Cassava (*Manihot esculenta*, Crantz) cake which is a popular Filipino delicacy made from grated cassava, cocoyam flour, condensed and evaporated milk, topped with grated cheese and or syrup. Cassava is a perennial, drought-tolerant shrub is known for its energy-filled starchy roots. The roots are filled with nutrients such as carbohydrates, proteins, vitamins and minerals. New Cocoyam also known as "Bisol", "Karlant" or "Takudo" in eatser Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers The development of new cocoyam cassava cake is a welcome development which offers a delightful treat fortified with nutrients. This product encourages consumption and increases the economic potential.

Publication Date

7/06/2023

Publication Number

PH22022051297U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) TUNA PIE

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

This utility model presents a process for producing tuna pie using new cocoyam (*Xanthosoma sagittifolium* (L) Schott) flour. The objective is to enhance the nutritional value and character of the product by incorporating new cocoyam flour. The process involves several steps, starting with washing and steaming the cocoyam until cooked. The cooked cocoyam is then peeled, sliced into chips, and sun-dried. The dried cocoyam is ground into a uniform flour. For the tuna pie mixture, ingredients like tuna, egg, crackers, onion, mayonnaise, and cheese are combined, while the dough mixture consists of milk,



egg white, yeast, sugar, butter, salt, all-purpose flour, and new cocoyam. The dough is kneaded, shaped, filled with tuna mixture, folded, and sealed. It is then coated with crushed crackers, baked in the oven, and allowed to cool before serving. This process provides an innovative way to utilize cocoyam in a delicious

Publication Date

7/06/2023

Publication Number

PH22022051296U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) COCONUT PUDDING (WHITE MAJA)

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

This utility model presents a process for producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) coconut pudding (maja blanca) as a pastry product for human consumption. Maja blanca, a popular Filipino dessert made from coconut milk, is enhanced by incorporating new cocoyam flour to create a unique variation. The process involves washing, steaming, peeling, slicing, and sun drying the cocoyam before grinding it into a uniform flour. The new cocoyam flour is then mixed with coconut milk, evaporated milk, white sugar, and vanilla in a large pan, heated, and brought to a boil. Cornstarch is added slowly while stirring, and the hot mixture is transferred to a tray to cool and set. This innovative process broadens the utilization of cocoyam and enhances the nutritional value of the coconut pudding.

Publication Date

7/06/2023

Publication Number

PH22022051292U1

Title

FORMULATION OF NEW COCOYAM (*xanthosoma sagittifolium* (L) Schott) COCONUT PUDDING (WHITE MAJA)

## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

This utility model presents a formulation for a new cocoyam (*Xanthosoma sagittifolium* (L) Schott) coconut pudding (maja blanca) as a pastry product for human consumption. Maja blanca, a beloved Filipino dessert, is a creamy and light coconut pudding traditionally served during fiestas and holidays. In this innovation, new cocoyam, a root crop known for its starchy corns, is incorporated to create a unique and underutilized variation of maja blanca. The formulation combines coconut milk, cornstarch, white sugar, evaporated milk, vanilla, and new cocoyam flour to achieve a delightful flavor and texture. The utility model aims to enhance the nutritional value and broaden the utilization of cocoyam by introducing it into the popular coconut pudding. This formulation presents an opportunity to diversify the use of cocoyam and unlock its economic potential.

## Publication Date

7/06/2023

## Publication Number

PH22022051302U1

## Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) HAZELNUT SHORTBREAD COOKIES

## Applicant

Cebu Technological University - Argao Campus,PH

## Abstract

The present utility model discloses the formulation of new Cocoyam (*Xanthosoma sagittifolium* (L) Schott) hazelnut shortbread cookies. Hazelnut shortbread cookies are made primarily of butter, sugar and flour. They are dry, crunchy and buttery which is best when dipped in hot drinks. On the other hand, New Cocoyam also known as "Bisol", "Karlant" or "Takudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making pandesal is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

Publication Date

31/05/2023

Publication Number

PH22022051315U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) BINANGKAL (ball doughnut)

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model is a process of producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) binangkal (ball doughnut) comprising the steps of washing the cocoyam, steaming until cooked, peeling and slicing into chips, sun drying, homogenizing using a blender, mixing the New Cocoyam flour with the binangkal ingredients to make a dough, kneading a spoonful of binangkal dough into a ball, rolling the binangkal dough ball on sesame to create a thin sesame coating, heating a frying pan with oil in it, frying the binangkal until uniformly golden brown, removing the binangkal from the frying pan and draining it of excess oil before serving.

Publication Date

31/05/2023

Publication Number

PH22022051316U1

Title

FORMULATION OF NEW COCOYAM (*xanthosoma sagittifolium* (L) Schott) BINANGKAL (ball doughnut)

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model discloses the formulation of producing New Cocoyam (*Xanthosoma sagittifolium* (L) Schott) binangkal. Binangkal is a traditional Filipino doughnut-like snack favored by

farmers and laborers due to its long shelf life and is proven to make anyone feel full right away. On the other hand, New Cocoyam also known as "Bisol", "Karlant" or "Takudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making binangkal is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

Publication Date

31/05/2023

Publication Number

PH22022051351U1

Title

METHOD OF PRODUCING GIANT SWAMP TARO (*Cyrtosperma merkusii*) BUTTERSCOTCH

Applicant

ROMBLON STATE UNIVERSITY,PH

Abstract

The present utility model identifies the formulation of New Cocoyam (*Xanthosoma sagittifolium* (L.) Schott) and Mindanao cinnamon (*Cinnamomum mindanaense*, Elmer) roll. Cinnamon roll is a delicious breakfast delight, popular during Christmas season. It is a soft and sweet bread full of aroma which anyone cannot resist. The nutrients this product can give is best for everyone with its exciting flavor. When its filling is exposed, it makes it even delicious. On the other hand, New Cocoyam also known as 'Bisol', Karlant or Tacudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, and fiber. Incorporating new cocoyam and Mindanao cinnamon roll in making a food product can enhance the nutrition, flavor of the commodity and the economic potential of the New Cocoyam and Mindanao cinnamon.

Publication Date

31/05/2023

Publication Number

PH22022051317U1

## Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) CHIFFON CAKE

## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

The present utility model discloses the formulation of producing cocoyam (*Xanthosoma sagittifolium* (L) Schott) chiffon cake. Chiffon cake is a very light cake made with vegetable oil, eggs, sugar, flour, baking powder, and flavorings. On the other hand, new Cocoyam also known as "Bisol", "Karlant" or "Takudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making muffins is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

## Publication Date

26/05/2023

## Publication Number

PH22022051283U1

## Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) CAKE ROLL

## Applicant

Cebu Technological University - Argao Campus,PH

## Abstract

The present utility model discloses the formulation of producing New Cocoyam cake roll. Cake rolls are a type of rolled sponge cakes filled with cream, jam, icing, or other fillings, which is usually sugar and margarine. On the other hand, New Cocoyam also known as "Bisol", "Karlant" or "Takudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making cake rolls is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products.

## Publication Date

26/05/2023

Publication Number

PH22022051285U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (1) Schott) PUTO (STEAMED CAKE) CHEESE

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model discloses the formulation of producing new cocoyam (*Xanthosoma sagittifolium* (L) Schott) puto cheese. Puto Cheese is a steamed cake topped with cheese formed like muffin. It is a common snack in household, can be eaten as such on its own. It can also be paired with tea or coffee. And its texture is spongy and fluffy like cake texture. On the other hand, New Cocoyam also known as "Bisol", "Karlanting" or "Takudo" in eatser Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making muffins is welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

Publication Date

26/05/2023

Publication Number

PH22022051314U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L.) Schott) BUCHI

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model identifies the formulation of New Cocoyam (*Xanthosoma sagittifolium* (L.) Schott) buchi. Buchi also known as sesame seed ball and is a soft and chewy dessert filled with

sweetened filling. It is made of glutinous rice flour which are shaped into balls. The filling may vary accordingly but is commonly filled with mung bean or red bean paste, ube yam and cheese. On the other hand, new cocoyam also known as 'Bisol', Karlang or Tacudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating New Cocoyam in making a buchi is a great initiative and is highly nutritious and delicious at the same time economical.

Publication Date

26/05/2023

Publication Number

PH22022051313U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L.) Schott) BREADING MIX

Applicant

Cebu Technological University - Argao Campus,PH

Abstract

The present utility model identifies the formulation of new cocoyam (*Xanthosoma sagittifolium* (L.) Schott) breeding mix. Breeding mix is a powder form coating used for fried food to add texture and flavor. It is primarily made of flour and various seasonings. On the other hand, new cocoyam also known as 'Bisol', Karlang or Tacudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating New Cocoyam in making a breeding mix is a great initiative and is highly nutritious and delicious at the same time economical.

Publication Date

26/05/2023

Publication Number

PH22022051312U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*xanthosoma sagittifolium* (L) Schott) BREADING MIX



## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

The present utility model signifies the process of producing new 5 cocoyam (*Xanthosoma sagittifolium* (L.) Schott) breeding mix. Breeding mix is a powder form coating used for fried food to add texture and flavor. It is primarily made of flour and various seasonings. On the other hand, new cocoyam also known as "Bisol", Karlang or Tacudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating New Cocoyam in making a breeding mix is a great initiative and is highly nutritious and delicious at the same time economical.

## Publication Date

26/05/2023

## Publication Number

PH22022051311U1

## Title

PROCESS OF PRODUCING NEW COCOYAM (*xanthosoma sagittifolium* (L) Schott) MALUNGGAY (*Moringa oleifera*, Lam.) RICE CAKE

## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

The present utility model discloses the process of producing malunggay rice cake using new cocoyam flour comprising the steps of soaking the rice overnight, grinding the soaked rice washing the malunggay leaves, removing the petioles of the leaves, blending the malunggayn leaves, mixing all the ingredients, such as ground soaked rice, new cocoyam flour, coconut milk, dry yeast, baking powder, white sugar, blended malunggay, letting the mixture rest for 1 hour and 30 minutes, putting the banana leaves into molders, preheating oven to 185°C, pouring the mixture into the molder, baking for 30 minutes, removing the baked rice cake from the oven, letting the baked rice cakes cool.

## Publication Date

26/05/2023

Publication Number

PH22022051310U1

Title

FOMULATION OF NEW COCOYAM CHOCOLATE (*Xanthosoma sagittifolium* (L) Schott) CRINKLES

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model identifies the formulation of New Cocoyam (*Xanthosoma sagittifolium* (L.) Schott) chocolate crinkles. New cocoyam also known as 'Bisol', Karlang or Tacudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of economic value. Chocolate crinkles are all time favorite Christmas cookies. They are deliciously soft and sweet. Rolled in confectioner's sugar that makes them black and white cookies. The development of New Cocoyam (*Xanthosoma sagittifolium* (L) Schott) chocolate crinkles encourages utilization of new cocoyam as an ingredient to enhance the flavor of the product and its nutritional value.

Publication Date

26/05/2023

Publication Number

PH22022051293U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) FLAN MILK

Applicant

Cebu Technological University - Argao Campus,PH

Abstract

The present utility model discloses the formulation of producing New Cocoyam (*Xanthosoma sagittifolium* (L) Schott) custard milk. Leche flan is made with condensed milk and egg yolks, which is usually steamed over an open flame or stove top in an oval-shaped tin mold known as lyanera or ilanera, but it is also sometimes baked. Leche flan is a staple dessert in Filipino celebratory feasts. On the other hand, New Cocoyam (*Xanthosoma sagittifolium* (L) Schott) also known as "Bisol", "Karlang" or "Takudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic

value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, fiber and starch. Incorporating "bisol" in making leche flan is a welcome development which introduced versatility of new cocoyam as an ingredient in making bakery products. This development also offers nutritious treat to consumers.

Publication Date

17/05/2023

Publication Number

PH22022051288U1

Title

PROCESS OF PRODUCING NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) CAKE ROLL

Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

Abstract

The present utility model is a process of producing new cocoyam cake roll comprising the steps that involves washing, steaming, peeling, slicing, and sun-drying the cocoyam to obtain uniform-sized chips, which are then ground into cocoyam flour. The cocoyam flour is mixed with other ingredients like all purpose flour, baking powder, salt, white sugar, vegetable oil, egg yolk, water, and vanilla to form a batter. Separately, egg whites, cream of tartar, and white sugar are mixed to form a meringue which is folded into the batter. The batter is poured into a baking pan and baked. Once baked, the cake is removed from the tray, spread on a flat surface, and filled with a mixture of coconut milk, evaporated milk, white sugar, vanilla, and new cocoyam flour that has been heated over low heat until thick. Finally, the cake is rolled to form a cake roll with the filling inside.

Publication Date

17/05/2023

Publication Number

PH22022051284U1

Title

FORMULATION OF NEW COCOYAM (*Xanthosoma sagittifolium* (L) Schott) MINDANAO CINNAMON (*Cinnamomum mindanaense*, Elmer) ROLL

## Applicant

CEBU TECHNOLOGICAL UNIVERSITY - ARGAO CAMPUS,PH

## Abstract

The present utility model identifies the formulation of New Cocoyam (*Xanthosoma sagittifolium* (L.) Schott) and Mindanao cinnamon (*Cinnamomum mindanaense*, Elmer) roll. Cinnamon roll is a delicious breakfast delight, popular during Christmas season. It is a soft and sweet bread full of aroma which anyone cannot resist. The nutrients this product can give is best for everyone with its exciting flavor. When its filling is exposed, it makes it even delicious. On the other hand, New Cocoyam also known as 'Bisol', Karlang or Tacudo" in Eastern Visayas is a fast-growing crop that is widely cultivated because of its economic value. It can produce up to 10 or more corms filled with vitamins and minerals, carbohydrates, and fiber. Incorporating new cocoyam and Mindanao cinnamon roll in making a food product can enhance the nutrition, flavor of the commodity and the economic potential of the New Cocoyam and Mindanao cinnamon.

## Publication Date

16/01/2023

## Publication Number

PH22022050064U1

## Title

A COMPOSITION OF MAKING CAKE ENRICHED WITH TANNIA (*xanthosoma sagittifolium*)

## Applicant

NGASEO Maxima C,PH | NGASEO Ruth C,PH

## Abstract

The present utility model relates to a composition of cake enriched with tannia (*Xanthosoma sagittifolium*) comprises of the following: 227 grams butter; 285 grams sugar; 258 cake flour; 110 grams tannia powder; 4 pieces eggs; 1/4 tsp. Salt; 3 tsp. baking powder; 1 tsp. vanilla; and 267 ml milk.

## Publication Date

23/12/2022

## Publication Number

PH22022050585U1

Title

METHOD OF PRODUCING FLOUR FROM LUTYA (*Xanthosoma sagittifolium*) CORMS

Applicant

CENTRAL MINDANAO UNIVERSITY,PH

Abstract

This utility model discloses the method of producing flour from luya (*Xanthosoma sagittifolium*) comprising the steps of selecting mature luya corms; washing and cleaning of the selected mature corms with water; sorting the washed and cleaned corms manually; boiling the sorted corms until soft; peeling of the boiled corms; slicing the peeled corms in thin, circular pieces; distributing the sliced corms in one layer of drying pan; placing the drying pan in the oven; pulverizing the dried corms using a blender; Sieving the pulverized corms; packaging the sieved flour in a ziplock bag; and storing the sieved flour at room temperature.

Publication Date

8/07/2022

Publication Number

PH22021051332U1

Title

PROCESS OF PRODUCING YAUTIA (*Xanthosoma sagittifolium* L. Schott) FLOUR

Applicant

CENTRAL MINDANAO UNIVERSITY,PH

Abstract

This utility model discloses a flour type comprising of yautia roots that is used as a wheat flour substitute in baked products and noodles, instant porridge for children, and, and as food binder and thickener. The process of yautia flour production comprises the following steps: selecting and segregating quality yautia roots which is the red, purple and white fleshed variety; washing and cleaning yautia with potable water to remove soil contaminants and unwanted solids; removing of the skin of the cleaned yautia roots; slicing of peeled yautia roots into smaller proportions; immersing of sliced yautia roots in cold water at a predetermined time; boiling of sliced yautia roots at a predetermined time; grating of the boiled yautia

roots using a food processor; oven-drying of the grated yautia roots at predetermined heat temperature until the desired moisture content is attained; milling of dried yautia slices until fine and powdery; and sieving of yautia powder to achieve the desired particle size. Specifically, the time of immersing yautia roots in cold water is at least 10 minutes while the time of boiling yautia roots is at least 40 minutes. Then, the drying temperature is at least 60°C and a moisture content for at least 5%.

Publication Date

23/03/2022

Publication Number

PH22021051385U1

Title

FLOUR FROM LUTYA CORMS (*Xanthosoma sagittifolium*)

Applicant

CENTRAL MINDANAO UNIVERSITY,PH

Abstract

This utility model discloses flour made from red and white varieties of lutya (*Xanthosoma sagittifolium*) for bread application, pastries and the like.

Publication Date

23/03/2022

Publication Number

PH22021051420U1

Title

PROCESS OF PRODUCING NEW COCOYAM POLVORON

Applicant

CEBU TECHNOLOGICAL UNIVERSITY-ARGAO,PH

Abstract

The present utility model signifies the process of producing New cocoyam (*Xanthosoma*

***sagittifolium*** (L.) Schott) shortbread also known as polvoron. It is primarily made of toasted flour, sugar, powdered milk and butter. On the other hand. New cocoyam is a fast-growing crop that is widely cultivated because of its economic value. It Is filled with vitamins and minerals, carbohydrates, and fiber. The process of preparing new cocoyam polvoron includes the steps of, preparing and measuring the ingredients, heating a skillet, adding the all-purpose flour and mix, removing from heat, melting the butter and margarine, mixing the dry ingredients, adding the flour mixture into the butter mixture and mix. adding the remaining ingredients, mixing and removing from heat, transferring the mixture into a flat dish, scooping and molding using a polvoron molder. wrapping each polvoron.

Publication Date

11/03/2022

Publication Number

PH22021051410U1

Title

PROCESS OF PRODUCING NEW COCOYAM-COOKIES AND CREAM POLVORON

Applicant

CEBU TECHNOLOGICAL UNIVERSITY-ARGAO,PH

Abstract

The present utility model is a process of producing polvoron from new cocoyam (*Xanthosoma sagittifolium* (L.) Schott) and commercial cookies and cream biscuit. Polvoron is a sweet, buttery shortbread made primarily of toasted flour, sugar, powdered milk Hand butter. Crushed cookies are sometimes used to produce different flavors of polvoron. New cocoyam is cultivated primarily as vegetable. It is filled with vitamins, minerals, carbohydrates and fiber. The process of preparing new cocoyam-cookies and cream polvoron primarily involves toasting of commercial all-purpose flour. crushed commercial cookies and cream biscuits, cocoyam powder, white sugar and powdered milk and then mixed melted butter and margarine; molded using commercially available polvoron mold and wrapped in colored cellophane.

Publication Date

17/12/2021

Publication Number

PH22021051384U1



## Title

COMPOSITION OF LUTYA (*xanthosoma sagittifolium*) BREAD ROLL WITH PAKO (*diplazium esculentum*)

## Applicant

CENTRAL MINDANAO UNIVERSITY,PH

## Abstract

This utility model discloses the composition of bread roll using luya (*Xanthosoma sagittifolium*) flour and fern pako (*Diplazium esculentum*) as a substitute for commercial flour. This bread roll consists of 20.30% luya flour, 4.65% fresh fern sample (pako), 35.38% all-purpose flour, 1.74% butter, 11.60% sugar, 3.71% egg, 0.87% salt, 21.46% evaporated milk, and 0.29% vanilla extract.

## Publication Date

23/08/2021

## Publication Number

ID202101986U1

## Title

POWDER DRINK FROM MIXTURE OF FRUIT AND LIME SKIN (*Citrus amblycarpa*) juice and the process of making it

## Applicant

UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAWA TIMUR,Jl. Raya Rungkut Madya, Gunung Anyar 60294,

Surabaya, ID

## Abstract

The present invention relates to a powder drink from a mixture of fruit juice and orange peel juice (*Citrus amblycarpa*) which is rich in vitamin C and is useful as an antioxidant. The present invention also relates to a powder drink manufacturing process which generally consists of two stages, namely the extraction stage and the drying stage. In the manufacture of this powder drink, extraction is carried out on the fruit and rind of limes. After obtaining fruit juice and orange peel extract from the extraction, maltodextrin from kimpul tubers (*Xanthosoma sagittifolium*) and gum arabic were added to produce a paste. The orange juice paste and lime peel juice were dried, mashed and sifted. Powdered

beverage products produced from the proportion of orange juice and orange peel juice (2:1) contain 42.632% antioxidant and 77.220 mg/100 g of vitamin C.

Publication Date

26/05/2021

Publication Number

OA19836A

Title

Dietary food supplement.

Applicant

M. ASSANDE N'Cho François,19 B.P. 2117, ABIDJAN 09, CI | M. YEBOUE Henri,09 B.P. 2117, ABIDJAN 09, CI | NADRO

Ourega Toussaint,09 B.P. 2117, ABIDJAN 09, CI

Abstract

The invention relates to a dietary food supplement, consisting of a combination of tuber and leaves of three plants which are *Colocasia exulenta*, ***Cyrtosperma merkusii*** and ***Xanthosoma sagittifolium*** which comes in two forms; the flour form and the syrup form. The main object of the invention is to reduce the excess of nerve reticulated areas of the brain by controlled mutations and thus endow the human being with high intelligence, better moral quality and a healthy body. The invention contains starches, proteins, lipids, antioxidants and many vitamins which work against most chronic, viral and metabolic diseases and also has the ability to reduce the aging process and maintain skin health. and eyes. To obtain the flour form, the tubers and leaves of *Colocasia exulenta*, ***Cyrtosperma merkusii*** and ***Xanthosoma sagittifolium***, sound, ripe, firm, are peeled, washed, grated into thin slices then dehydrated and crushed before being packaged in sachets. waterproof that can be stored for six months. And for the syrup form, the previously obtained flour is mixed with clean water and boiled to give a syrup.

Publication Date

24/05/2021

Publication Number

PH22020000409Y1

## Title

PROCESS OF PREPARING FRIES STICKS FROM WHITE AND PURPLE VARIETY OF TANNIA/YAUTIA (*Xanthosoma sagittifolium* (L) SCHOTT) CORMELS

## Applicant

## Abstract

The present utility model refers to the process of making "fries sticks" from whit and purple variety of Tannia/Yautia (*Xanthosoma sagittifolium* (L) Schott) cormels. The process comprises of washing, pairing, slicing into sticks, blanching, draining, drying, packaging and storing at frozen state if not to be cooked readily which can be preserved for at least six months.

## Publication Date

24/05/2021

## Publication Number

PH22020000409U1

## Title

PROCESS OF PREPARING FRIES STICKS FROM WHITE AND PURPLE VARIETY OF TANNIA/YAUTIA (*Xanthosoma sagittifolium* (L) SCHOTT) CORMELS

## Applicant

MARINDUQUE STATE COLLEGE,PH

## Abstract

The present utility model refers to the process of making "fries sticks" from white and purple variety of Tannia/Yautia (*Xanthosoma sagittifolium* (L) Schott) cormels. The process comprises of washing, pairing, slicing into sticks, blanching, draining, drying, packaging and storing at frozen state if not to be cooked readily which can be preserved for at least six months.

## Publication Date

3/01/2018

## Publication Number

PH22017000844U1

## Title

METHOD OF PRODUCING FISH-TANNIA (*Xanthosoma sagittifolium*) ROOT ICE CREAM

## Applicant

Carlos Hilado Memorial State College,PH

## Abstract

The present utility model discloses a method of producing ice cream made of fish and tannia (*Xanthosoma sagittifolium*) root which is proven to nutritious and provides health benefits to consumers. The utility model discloses an ice cream with minimal risks of acquiring diabetes.

## Publication Date

3/01/2018

## Publication Number

PH22017000844Y1

## Title

METHOD OF PRODUCING FISH-TANNIA (*Xanthosoma sagittifolium*) ROOT ICE CREAM

## Applicant

## Abstract

The present utility model discloses a method of producing ice cream made of fish and tannia (*Xanthosoma sagittifolium*) root which is proven to nutritious and provides health benefits to consumers. The utility model discloses an ice cream with minimal risks of acquiring diabetes.

## Publication Date

2/06/2017

## Publication Number

PH22016000962Y1

## Title

METHOD OF PRODUCING TANNIA (*Xanthosoma sagittifolium*) - FILLED BREAD ROLLS

## Applicant

## Abstract

This utility model relates to the process of producing tannia (*Xanthosoma sagittifolium*) filled - bread rolls following an easy procedure which generally involves combining Tannia puree, evaporated milk, margarine, salt, and refined sugar to first form the filling, cooking the ingredients for the filling in slow fire and stirring continuously until it becomes thick, setting the cooked filling aside; combining bread flour, refined sugar, margarine, egg, yeast salt, salt, evaporated milk, and water in a mixing bowl, blending all the ingredients thoroughly, kneading, the blended ingredients until it becomes smooth and elastic, letting the kneaded ingredients rise for one hour, punching and kneading the dough, rolling and cutting the dough into desired sizes, flattening and filling the dough with the prepared filling, molding and brushing the filled dough with egg white, letting the dough rise until it doubles in size; and baking the dough in a pre-heated oven until golden brown.

## Publication Date

2/06/2017

## Publication Number

PH22016000961U1

## Title

TANNIA (*Xanthosoma sagittifolium*) - SESAME BALLS

## Applicant

Apayao State College,PH

## Abstract

This utility model relates to a tannia (*Xanthosoma sagittifolium*) sesame balls comprising of: 520 grams glutinous rice, 96 grams refined sugar, 1 tsp salt, 177 ml evaporated milk, 118 ml water, 340 grams tannia puree and 43 grams sesame seeds.

## Publication Date

2/06/2017

## Publication Number

PH22016000962U1

## Title

METHOD OF PRODUCING TANNIA (*Xanthosoma sagittifolium*) - FILLED BREAD ROLLS

Applicant

APAYAO STATE COLLEGE,PH

Abstract

This utility model relates to the process of producing tannia (*Xanthosoma sagittifolium*) filled - bread rolls following an easy procedure which generally involves combining Tannia puree, evaporated milk, margarine, salt, and refined sugar to first form the filling, cooking the ingredients for the filling in slow fire and stirring continuously until it becomes thick, setting the cooked filling aside; combining bread flour, refined sugar, margarine, egg, yeast salt, salt, evaporated milk, and water in a mixing bowl, blending all the ingredients thoroughly, kneading, the blended ingredients until it becomes smooth and elastic, letting the kneaded ingredients rise for one hour, punching and kneading the dough, rolling and cutting the dough into desired sizes, flattening and filling the dough with the prepared filling, molding and brushing the filled dough with egg white, letting the dough rise until it doubles in size; and baking the dough in a pre- heated oven until golden brown.

Publication Date

2/06/2017

Publication Number

PH22016000961Y1

Title

TANNIA (*Xanthosoma sagittifolium*) - SESAME BALLS

Applicant

Abstract

This utility model relates to a tannia (*Xanthosoma sagittifolium*) sesame balls comprising of: 520 grams glutinous rice, 96 grams refined sugar, 1 tsp salt, 177 ml evaporated milk, 118 ml water, 340 grams tannia puree and 43 grams sesame seeds.

Publication Date

1/02/2017

Publication Number

PH22017000003U1

## Title

PROCESS OF PRODUCING JAM FROM TANNIA (*Xanthosoma sagittifolium*) AND SWEET POTATO (*Ipomoea batatas*)

## Applicant

APAYAO STATE COLLEGE,PH

## Abstract

This utility model relates to the process of producing jam from camote (*Ipomoea batatas*) following an easy procedure which generally involves blending camote and tannia separately; mixing 681 grams sweet potato puree and 340.5 grams tannia puree from step (a) ,177 ml water, 201 grams refined sugar, 76 grams margarine, 1 tsp salt, and 235 ml evaporated milk; and cooking the mixture over medium flame until thick.

## Publication Date

1/02/2017

## Publication Number

PH22017000003Y1

## Title

PROCESS OF PRODUCING JAM FROM TANNIA (*Xanthosoma sagittifolium*) AND SWEET POTATO (*Ipomoea batatas*)

## Applicant

## Abstract

This utility model relates to the process of producing Jam from camote (*Ipomoea batatas*) following an easy procedure which generally involves blending camote and tannia separately; mixing 681 grams sweet potato puree and 340.5 grams tannia puree from step (a) ,177 ml water, 201 grams refined sugar, 76 grams margarine, 1 tsp salt, and 235 ml evaporated milk; and cooking the mixture over medium flame until thick.

## Publication Date

30/01/2017

Publication Number

PH22016000942U1

Title

METHOD OF PRODUCING COOKIES FROM TANNIA (*Xanthosoma sagittifolium*) AND CAMOTE (*Ipomoea batatas*)

Applicant

Apayao State College,PH

Abstract

This utility model relates to the process of producing Cookies from Tannia (*Xanthosoma sagittifolium*)-and Sweet Potato (*Ipomoea batatas*) following an easy procedure which generally involves combining and blending sifted flour, baking powder, skim milk, egg, white sugar and margarine in a mixing bowl, adding tannia puree and camote puree to the mixture, mixing the mixture until it will be well blended, molding and forming the blended mixture into desired sizes, placing the molded dough in a greased baking pan and flatten; and baking the in a pre-heated oven for 15-20 minutes until golden brown.

Publication Date

30/01/2017

Publication Number

PH22016000948Y1

Title

METHOD OF PRODUCING BREAD BUNS FROM TANNIA (*Xanthosoma sagittifolium*)

Applicant

Abstract

This utility model relates to the process of producing bread buns from Tannia (*Xanthosoma sagittifolium*)- which generally involves combining flour, refined sugar, salt and yeast in a mixing bowl; adding water, milk, and shortening to the mixture; blending the mixture thoroughly and adding tannia puree; kneading the dough until smooth and elastic; forming the kneaded dough into ball placing the balled dough in slightly greased mixing bowl and brushing the top with shortening; covering the dough and letting it rise in a warm area for 1 hour until it will double in size; punching down the dough



and continue kneading; dividing the dough into desired sizes and forming them into balls; cleaving the dough until they are smooth; placing the cleaved dough in a greased baking sheet and letting it rise for 45 minutes to 1 hour; brushing the dough with egg yolk; baking the dough for 15 to 20 minutes at 191 °C or 375 °F; and removing the baked buns from the oven and let it cool for 10 minutes.

Publication Date

30/01/2017

Publication Number

PH22016000942Y1

Title

METHOD OF PRODUCING COOKIES FROM TANNIA (*Xanthosoma sagittifolium*) AND CAMOTE (*Ipomoea batatas*)

Applicant

Abstract

This utility model relates to the process of producing Cookies from Tannia (*Xanthosoma sagittifolium*) and Sweet Potato (*Ipomoea batatas*) following an easy procedure which generally involves combining and blending sifted flour, baking powder, skim milk, egg, white sugar and margarine in a mixing bowl, adding tannia puree and camote puree to the mixture, mixing the mixture until it will be well blended, molding and forming the blended mixture into desired sizes, placing the molded dough in a greased baking pan and flatten; and baking the in a pre-heated oven for 15- 20 minutes until golden brown.

Publication Date

30/01/2017

Publication Number

PH22016000943U1

Title

METHOD OF PRODUCING COOKIES FROM TANNIA (*Xanthosoma sagittifolium*)

Applicant

Apayao State College,PH

#### Abstract

This utility model relates to the process of producing cookies from tannia (*Xanthosoma sagittifolium*) following an easy procedure which generally involves combining and blending sifted flour, baking powder, skim milk, egg, white sugar and margarine in a mixing bowl, adding tannia puree to the mixture, mixing the mixture until it will be well blended, molding and forming the blended mixture into desired sizes, placing the molded dough in a greased baking pan and flatten; and baking the in a pre-heated oven for 15-20 minutes until golden brown.

Publication Date

30/01/2017

Publication Number

PH22016000958U1

Title

TANNIA (*Xanthosoma sagittifolium*) BALLS

Applicant

Apayao State College,PH

#### Abstract

This utility model relates to Tannia balls (*Xanthosoma sagittifolium*) consisting of 520 grams glutinous rice, 96 grams refined sugar, 1 tsp salt, 177ml evaporated milk, 118 ml water, and 340 grams Tannia puree.

#### Abstract (English):

A method of processing peanut butter consisting of carrots; cabbage; leek; celery; garlic; pepper; powdered broth; salt and eggs where the dough is recommended with rice flour 60-80 grams preferably 70 grams, wheat flour 140-150 salt preferably 150 grams and peanuts 150-170 grams preferably 160 grams fried peanuts with a time of 1-3 minutes is preferred 1 minute half cooked in a medium heat blender coarse peanuts for 10 seconds then add the blended peanuts to the previous bakwan mixture and mix well. Frying process heat cooking oil with 1 to 3 liters, preferably 2 liters, over medium heat with an oil temperature of 140-160 degrees celsius, put the bakwan dough using a concave spoon into hot oil as much as 5-10 pieces preferably 8 pieces fry for 1-2 5 minutes preferably 3 minutes until golden brown. Then lift and drain.

**(Translation from Clarivate)**

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Imagen: Raíces de "Malanga" (*Xanthosoma sagittifolium*) en Cuba, junto con patatas y melones. Fecha: 2017. Extraído de: [https://upload.wikimedia.org/wikipedia/commons/thumb/5/58/Root\\_vegetables\\_%22Malanga%22\\_and\\_potatoes\\_at\\_Cuban\\_street\\_market.jpg/800px-Root\\_vegetables\\_%22Malanga%22\\_and\\_potatoes\\_at\\_Cuban\\_street\\_market.jpg?20180213175226](https://upload.wikimedia.org/wikipedia/commons/thumb/5/58/Root_vegetables_%22Malanga%22_and_potatoes_at_Cuban_street_market.jpg/800px-Root_vegetables_%22Malanga%22_and_potatoes_at_Cuban_street_market.jpg?20180213175226)

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