UNIVERSIDAD NACIONAL
JOSÉ FAUSTINO SÁNCHEZ CARRIÓN

BÚSQUEDA DE INFORMACIÓN CIENTÍFICA

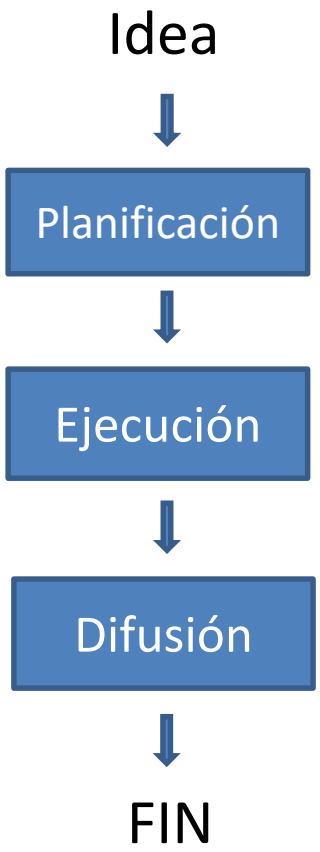
Dr. Raúl Siche

UNIVERSIDAD NACIONAL DE TRUJILLO

Taller:

Formulación de Proyectos de Investigación Científica y/o Tecnológica

INVESTIGACIÓN CIENTÍFICA



Proyecto de investigación

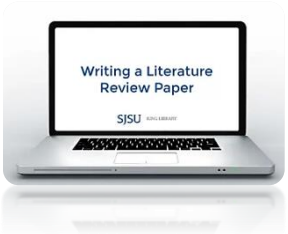
Informe de resultados

- Artículo científico
- Libro
- Patente
- Presentación en eventos

2 Plan de investigación

- **Estado del arte:** **revisión rigurosa de la literatura**.
  Ayuda a definir mejor:
  - Problema
  - Objetivos
  - Hipótesis
  - Justificación
  - Metodología

Review



- **Coherencia**

Objetivo general
- ✓ Obj. esp. 1
- ✓ Obj. esp. 2
- ✓ Obj. esp. 3

⇄

Metodología
- ✓ Método para obj. esp. 1
- ✓ Método para obj. esp. 2
- ✓ Método para obj. esp. 3

⇄

Presupuesto
- ✓ S/ Actividad 1
- ✓ S/ Actividad 2
- ✓ S/ Actividad 3

2 Plan de investigación

- **Estado del arte:** revisión rigurosa de la literatura.

¿Para qué?

- **Para justificar una investigación**
- **Para elegir (tema, hipótesis, métodos, técnicas, etc.) con fundamento…**

No basta sólo la **intuición** y el **sentido común**

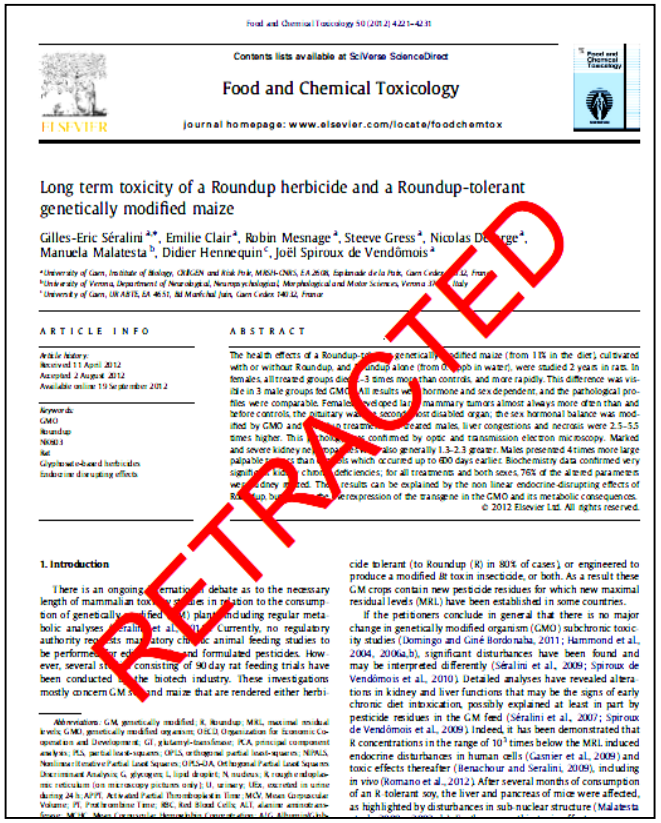
2 Plan de investigación

Funciones

- **Previene errores cometidos en otros estudios**

La Agencia Europea de Seguridad Alimentaria confirmaron que **el estudio científico estaba mal diseñado**, ya que se había trabajado con un número de ratas muy pequeño como para dar por sentado que el alimento transgénico producía el cáncer.

Además, las cepas de roedores anali-zadas, como comentaban diversos expertos, eran propensas a desarrollar tumores durante toda su vida.



Food and Chemical Toxicology 50 (2012) 4221–4231

Contents lists available at SciVerse ScienceDirect

Food and Chemical Toxicology

journal homepage: www.elsevier.com/locate/foodchemtox

RETRACTED

Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize

Gilles-Eric Séralini [a,*], Emilie Clair [a], Robin Mesnage [a], Steeve Gress [a], Nicolas Defarge [a], Manuela Malatesta [b], Didier Hennequin [c], Joël Spiroux de Vendômois [a]

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ARTICLE INFO

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Available online 19 September 2012

Keywords:
GMO
Roundup
NK603
Rat
Glyphosate-based herbicides
Endocrine disrupting effects

ABSTRACT

The health effects of a Roundup [illegible] genetically modified maize (from 11% in the diet), cultivated with or without Roundup, and [illegible] Roundup alone (from 0.1 ppb in water), were studied 2 years in rats. In females, all treated groups died [illegible]–3 times more than controls, and more rapidly. This difference was visible in 3 male groups fed GMO. All results were hormone and sex dependent, and the pathological profiles were comparable. Females developed large mammary tumors almost always more often than and before controls, the pituitary was the second most disabled organ, the sex hormonal balance was modified by GMO and [illegible] treatments. Treated males, liver congestions and necrosis were 2.5–5.5 times higher. This [illegible] confirmed by optic and transmission electron microscopy. Marked and severe kidney [illegible] were also generally 1.3–2.3 greater. Males presented 4 times more large palpable tumors than [illegible] which occurred up to 600 days earlier. Biochemistry data confirmed very significant [illegible] cholesterol deficiencies; for all treatments and both sexes, 76% of the altered parameters were [illegible] altered. The results can be explained by the non linear endocrine-disrupting effects of Roundup, but [illegible] overexpression of the transgene in the GMO and its metabolic consequences.

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1. Introduction

There is an ongoing [illegible] debate as to the necessary length of mammalian toxicity studies in relation to the consumption of genetically modified (GM) plants, including regular metabolic analyses (Séralini et al., 2007). Currently, no regulatory authority requests mandatory chronic animal feeding studies to be performed on GM crops and formulated pesticides. However, several studies consisting of 90 day rat feeding trials have been conducted by the biotech industry. These investigations mostly concern GM [illegible] and maize that are rendered either herbicide tolerant (to Roundup (R) in 80% of cases), or engineered to produce a modified *Bt* toxin insecticide, or both. As a result these GM crops contain new pesticide residues for which new maximal residual levels (MRL) have been established in some countries.

If the petitioners conclude in general that there is no major change in genetically modified organism (GMO) subchronic toxicity studies (Domingo and Giné-Bordonaba, 2011; Hammond et al., 2006, 2006a,b), significant disturbances have been found and may be interpreted differently (Séralini et al., 2008; Spiroux de Vendômois et al., 2010). Detailed analyses have revealed alterations in kidney and liver functions that may be the signs of early chronic diet intoxication, possibly explained at least in part by pesticide residues in the GM feed (Séralini et al., 2007; Spiroux de Vendômois et al., 2009). Indeed, it has been demonstrated that R concentrations in the range of 10^{-3} times below the MRL induced endocrine disturbances in human cells (Gasnier et al., 2009) and toxic effects thereafter (Benachour and Seralini, 2009), including *in vivo* (Romano et al., 2012). After several months of consumption of an R-tolerant soy, the liver and pancreas of mice were affected, as highlighted by disturbances in sub-nuclear structure (Malatesta

Abbreviations: GM, genetically modified; R, Roundup; MRL, maximal residual levels; GMO, genetically modified organism; OECD, Organization for Economic Co-operation and Development; GT, glutamyl-transferase; PCA, principal component analyses; PLS, partial least-squares; OPLS, orthogonal partial least-squares; NOPLS, Nonlinear Iterative Partial Least Squares; O-PLS-DA, Orthogonal Partial Least Squares Discriminant Analysis; G, glycogen; L, lipid droplet; N, nucleus; R, rough endoplasmic reticulum (on microscopy pictures only); U, urinary; Ute, excreted in urine during 24 h; APTT, Activated Partial Thromboplastin Time; MCV, Mean Corpuscular Volume; PT, Prothrombine Time; RBC, Red Blood Cells; ALT, alanine aminotransferase; MCH, Mean Corpuscular Hemoglobin Concentration; AST, Aspartate Amino-

2 Plan de investigación

Funciones

- Orienta el cómo realizar el estudio.

Meat Science 133 (2017) 43–50

Contents lists available at ScienceDirect

Meat Science

journal homepage: www.elsevier.com/locate/meatsci

An application based on the decision tree to classify the marbling of beef by hyperspectral imaging

Lía Velásquez[a], J.P. Cruz-Tirado[a], Raúl Siche[a,*], Roberto Quevedo[b]

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[b] Fitogen Program, Department of Aquaculture and Agrifood Resources, Universidad de Los Lagos, Av. Fuchslocher 1305, Osorno, Chile

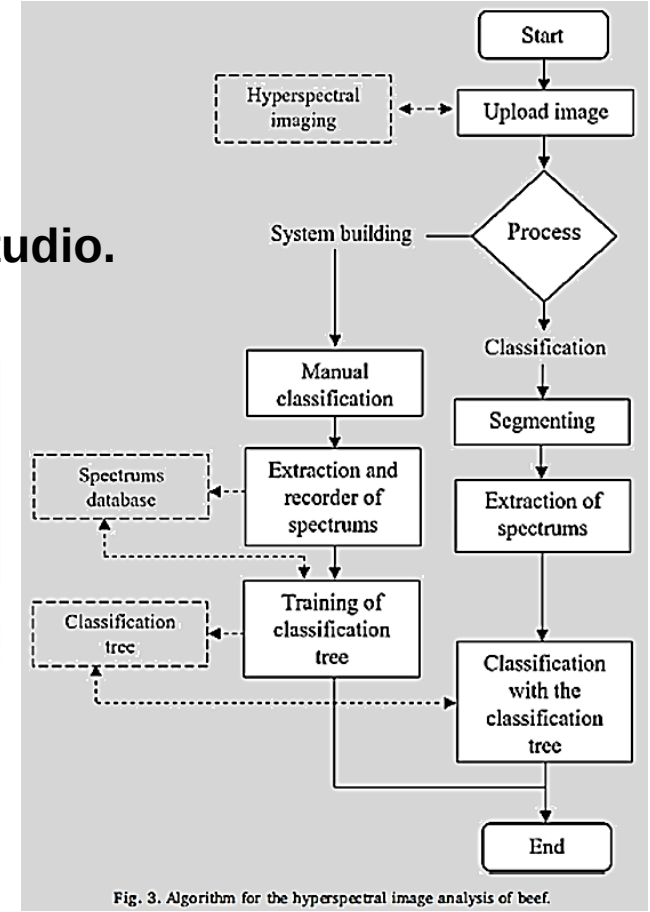


Fig. 3. Algorithm for the hyperspectral image analysis of beef.

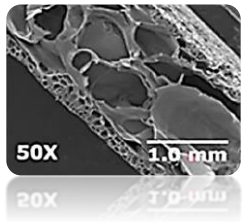
2 Plan de investigación

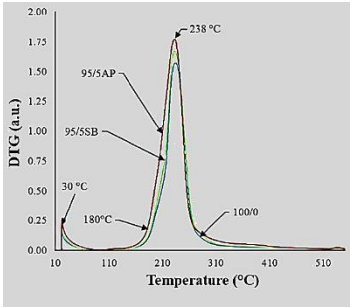
Funciones

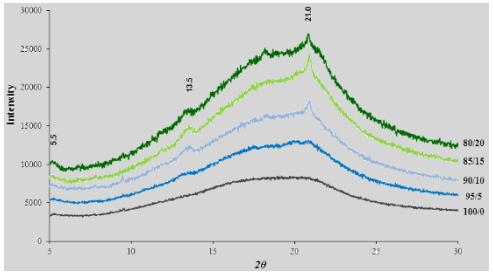
- **Amplía el horizonte del estudio**

Por ejemplo, que pruebas hacer en materiales

1. Microscopía electrónica
2. Estudio reológico de materia prima
3. Propiedades mecánicas
4. Propiedades térmicas
5. Capacidad de absorción de agua
6. Análisis termogravimétrico.







2 Plan de investigación

Funciones

- Ayuda a establecer hipótesis o afirmaciones
- Entrega nuevas líneas de investigación
- Provee un marco de referencia para la interpretación de los resultados del estudio

2 Plan de investigación

Etapas

Detección de la bibliografía útil

↓

Extracción y recopilación de la información relevante

↓

Construcción del estado del arte

2 Plan de investigación

Detección de bibliografía útil

Bases de Datos

- Bibliográficas — Scopus, Google Académico, Web of Science (Thomson Reuters)
- De texto completo — ScienceDirect, SciELO
- Directorios — Latindex, DOAJ Directory of Open Access Journals, CTI Vitae (Hojas de Vida afines a la Ciencia y Tecnología)
- Especializadas — PubMed, IEEE Xplore Digital Library

https://www.bvsspa.es/profesionales/bbdd-y-otros-recursos/recursos/teseo-base-de-datos-de-tesis-doctorales

http://www.fao.org/faostat/es/#home

http://www.siicex.gob.pe/siicex/

ALICIA — Acceso libre a información científica para la innovación

https://alicia.concytec.gob.pe/vufind/

NORMAS LEGALES DE HOY — Fundado el 22 de octubre de 1825 por el Libertador Simón Bolívar — El Peruano — Diario Oficial

https://diariooficial.elperuano.pe/Normas

2 Plan de investigación

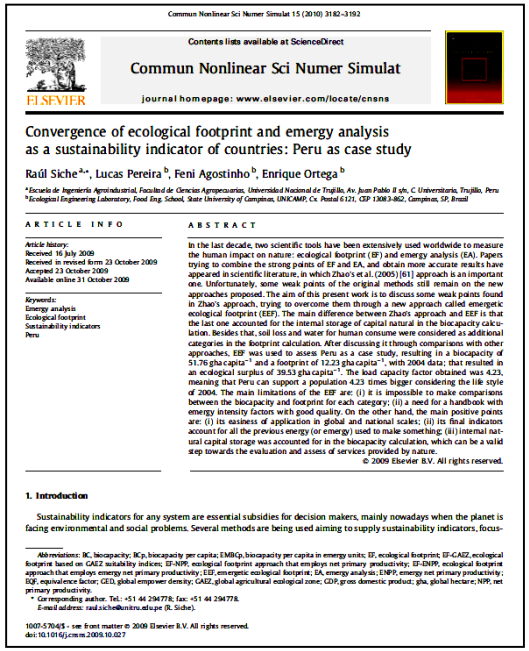
Extracción y recopilación de la información relevante

Es la recopilación física y/o digital de la literatura en bibliotecas, filmotecas, hemerotecas, bases de datos, internet, etc.

Lo relevante podría estar en función de:

- Tipo de fuente
- Antigüedad de publicación
- Otros (autoridad académica de los autores, factor de impacto, etc.)

Fuentes Primarias. Es el objetivo de toda investigación bibliográfica y entregan datos de primera mano



Commun Nonlinear Sci Numer Simulat 15 (2010) 3182–3192

Contents lists available at ScienceDirect

Commun Nonlinear Sci Numer Simulat

journal homepage: www.elsevier.com/locate/cnsns

Convergence of ecological footprint and emergy analysis as a sustainability indicator of countries: Peru as case study

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ARTICLE INFO

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Keywords:
Emergy analysis
Ecological footprint
Sustainability indicators
Peru

ABSTRACT

In the last decade, two scientific tools have been extensively used worldwide to measure the human impact on nature: ecological footprint (EF) and emergy analysis (EA). Papers trying to combine the strong points of EF and EA, and obtain more accurate results have appeared in scientific literature, in which Zhao's et al. (2005) [61] approach is an important one. Unfortunately, some weak points of the original methods still remain on the new approaches proposed. The aim of this present work is to discuss some weak points found in Zhao's approach, trying to overcome them through a new approach called emergetic ecological footprint (EEF). The main difference between Zhao's approach and EEF is that the last one accounted for the internal storage of capital natural in the biocapacity calculation. Besides that, soil loss and water for human consume were considered as additional categories in the footprint calculation. After discussing it through comparisons with other approaches, EEF was used to assess Peru as a case study, resulting in a biocapacity of 51.76 gha capita^{-1} and a footprint of 12.23 gha capita^{-1}, with 2004 data; that resulted in an ecological surplus of 39.53 gha capita^{-1}. The load capacity factor obtained was 4.23, meaning that Peru can support a population 4.23 times bigger considering the life style of 2004. The main limitations of the EEF are: (i) it is impossible to make comparisons between the biocapacity and footprint for each category; (ii) a need for a handbook with emergy intensity factors with good quality. On the other hand, the main positive points are: (i) its easiness of application in global and national scales; (ii) its final indicators account for all the previous energy (or emergy) used to make something; (iii) internal natural capital storage was accounted for in the biocapacity calculation, which can be a valid step towards the evaluation and assess of services provided by nature.

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1. Introduction

Sustainability indicators for any system are essential subsidies for decision makers, mainly nowadays when the planet is facing environmental and social problems. Several methods are being used aiming to supply sustainability indicators, focus-

Abbreviations: BC, biocapacity; BCp, biocapacity per capita; EMBCp, biocapacity per capita in emergy units; EF, ecological footprint; EF-GAEZ, ecological footprint based on GAEZ suitability indices; EF-NPP, ecological footprint approach that employs net primary productivity; EF-ENPP, ecological footprint approach that employs emergy net primary productivity; EEF, emergetic ecological footprint; EA, emergy analysis; ENPP, emergy net primary productivity; EQF, equivalence factor; GED, global empower density; GAEZ, global agricultural ecological zone; GDP, gross domestic product; gha, global hectare; NPP, net primary productivity.

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1007-5704/$ - see front matter © 2009 Elsevier B.V. All rights reserved.
doi:10.1016/j.cnsns.2009.10.027

Artículo científico

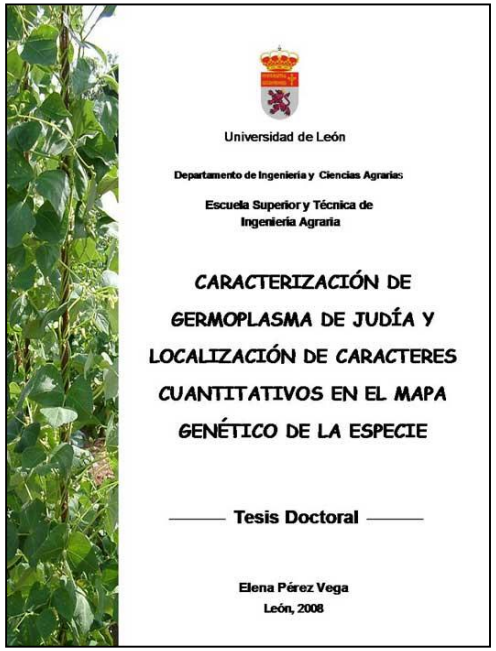
Informe escrito y publicado que describe **resultados originales** de una investigación.

Fuentes Primarias. Es el objetivo de toda investigación bibliográfica y entregan datos de primera mano

Ponencia en Congreso

Es una presentación oral y escrita de un **trabajo de investigación**, dando a conocer una situación problemática o de oportunidad, el método, los resultados y sus conclusiones.

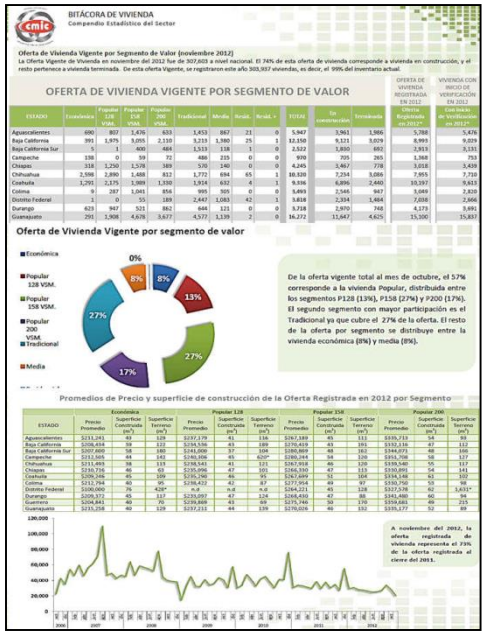
Fuentes Primarias. Es el objetivo de toda investigación bibliográfica y entregan datos de primera mano



Tesis

Proposición, opinión o teoría que se mantiene con razonamientos. Es también un trabajo de **carácter científico**, habitualmente para obtener el título de doctor en una universidad.

Fuentes Primarias. Es el objetivo de toda investigación bibliográfica y entregan datos de primera mano


BITÁCORA DE VIVIENDA
Compendio Estadístico del Sector

Oferta de Vivienda Vigente por Segmento de Valor (noviembre 2012)

OFERTA DE VIVIENDA VIGENTE POR SEGMENTO DE VALOR

Oferta de Vivienda Vigente por segmento de valor

Promedios de Precio y superficie de construcción de la Oferta Registrada en 2012 por Segmento

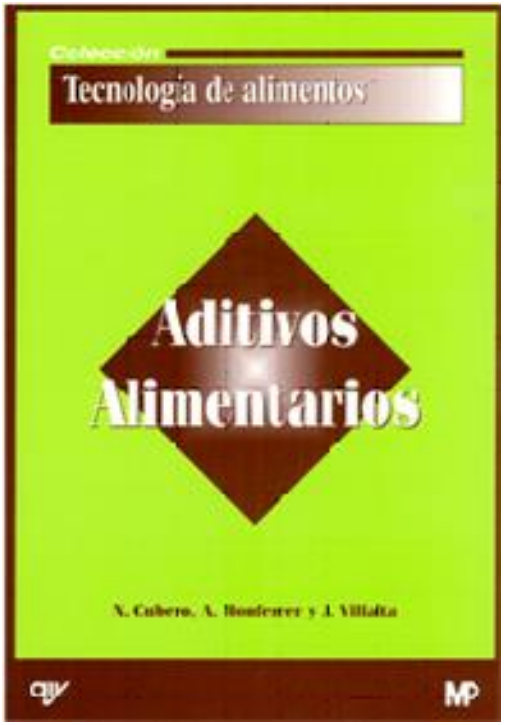
Reportes

Documento en el cual se responde a:

- ✓ ¿qué investigación se realizó?
- ✓ ¿cómo se efectuó?
- ✓ ¿qué resultados y conclusiones se obtuvieron?

Por ejemplo: estadísticas.

Fuentes Secundarias. Son documentos que utilizan o listan fuentes primarias.



Libros

En ciertos casos es una fuente primaria, pero normalmente son fuentes secundarias.

Según la Unesco, debe poseer 49 o más páginas, de 5 a 48 páginas sería un folleto, y de 1 a 4 páginas se consideran hojas sueltas.

Fuentes Secundarias. Son documentos que utilizan o listan fuentes primarias.

Brazilian Journal of Food Technology

Campinas, v. 16, n. 4, p. 254-272, out./dez. 2013
DOI: http://dx.doi.org/10.1590/S1981-67232013005000031

Review: computer vision applied to the inspection and quality control of fruits and vegetables

Revisão: visão computacional aplicada à inspeção e ao controle da qualidade de frutas e verduras

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Summary

This is a review of the current existing literature concerning the inspection of fruits and vegetables with the application of computer vision, where the techniques most used to estimate various properties related to quality are analyzed. The objectives of the typical applications of such systems include the classification, quality estimation according to the internal and external characteristics, supervision of fruit processes during storage or the evaluation of experimental treatments. In general, computer vision systems do not only replace manual inspection, but can also improve their skills. In conclusion, computer vision systems are powerful tools for the automatic inspection of fruits and vegetables. In addition, the development of such systems adapted to the food industry is fundamental to achieve competitive advantages.

Key words: *Computer vision; Image analysis; Automatic inspection; Quality control; Real time.*

Resumo

Este trabalho apresenta uma revisão da literatura existente, mais recente, sobre visão computacional aplicada à inspeção de frutas e verduras. Foram analisadas as técnicas mais empregadas para estimar diversas propriedades relacionadas com a qualidade. Os objetivos das aplicações típicas de tais sistemas incluem a classificação, a estimativa da qualidade segundo características internas ou externas, o seguimento dos processos da fruta durante o armazenamento ou a avaliação de tratamentos experimentais. Em geral, um sistema de visão computacional não só pode substituir a inspeção manual, mas também melhorar suas capacidades. Conclui-se que os sistemas de visão computacional são potentes ferramentas para a inspeção automática da qualidade de frutas e verduras, e o desenvolvimento de sistemas deste tipo, adaptados à indústria de alimentos, é fundamental para adquirir vantagens competitivas.

Palavras-chave: *Visão computacional; Análise de imagens; Inspeção automática; Controle de qualidade; Tempo real.*

Artículo de revisión

Estudio detallado, selectivo y crítico que examina la bibliografía publicada y la sitúa en cierta perspectiva.

Merino-Trujillo, A. 2011. Como escribir documentos científicos (Parte 3). Artículo de revisión. Salud en Tabasco, vol. 17, núm. 1-2, 36-40.

Casos de dificultad de acceso a la información científica

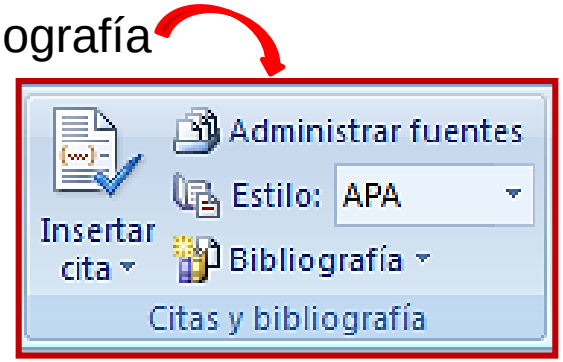
https://sci-hub.tw/

2 Plan de investigación

Extracción y recopilación de la información relevante

Procedimientos:

- Elaboración de fichas bibliográficas ✖
- Elaboración directa de citas y bibliografía



2 Plan de investigación

Etapas

Extracción y recopilación de la información relevante

Incluir:

- Publicaciones que ayuden a comprender el contexto de la investigación (Realidad problemática)
- Resultados de estudios previos sobre lo que se está investigando (Antecedentes)
- Procedimientos aplicables a la investigación (Métodos y técnicas)

2 Plan de investigación

Extracción y recopilación de la información relevante

No incluir:

- Elementos no bibliográficos
- Cita de citas.

2 Plan de investigación

Extracción y recopilación de la información relevante

Formas:

- Cita textual
- **Paráfrasis**
- Resumen
- Uso de los datos

2 Plan de investigación

Construcción del estado del arte

Manejo de fuentes

Chequear los autores citados al interior del texto con los que aparecen en la bibliografía

No citar autores con nombres alterados o incompletos.

2 Plan de investigación

Construcción del estado del arte

Metas

¿Cuántas fuentes utilizaré?

¿Cuántas fuentes en idioma extranjero?

¿Cuál será la antigüedad promedio de mis fuentes?

¿Cuántas fuentes proceden de revistas altamente especializadas?

2 Plan de investigación

Taller

Elija un tema y utilizando la base de datos SCOPUS realice las siguientes actividades:

- Extraiga y recopile información relevante sobre su tema
- Construya su estado del arte utilizando la función Citas y Bibliografía del MS WORD

Haga el mismo ejercicio utilizando Google Académico.

Busca autores en un mapa

https://www.authormapper.com/