

### Automatic translation

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### Feed categories

#### All feeds

#### Forage plants

- Cereal and grass forages
- Legume forages
- Forage trees
- Aquatic plants
- Other forage plants

#### Plant products/by-products

- Cereal grains and by-products
- Legume seeds and by-products
- Oil plants and by-products
- Fruits and by-products
- Roots, tubers and by-products
- Sugar processing by-products
- Plant oils and fats
- Other plant by-products

#### Feeds of animal origin

- Animal by-products
- Dairy products/by-products
- Animal fats and oils

#### Other feeds

- Minerals
- Other products

### Latin names

#### Plant and animal families

#### Plant and animal species

### Resources



## Feedipedia: An on-line encyclopedia of animal feeds

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## Explore Feedipedia


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## Recent publications



Utilization of fruit and vegetable wastes as livestock feed and as substrates for generation of other value-added products - Wadhwa et al.,

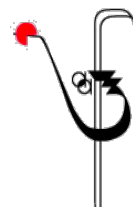
# Feedipedia: a worldwide reference on animal feed resources



INRA



cirad



Association  
française de  
zootechnie



Valérie Heuzé<sup>a</sup>, Gilles Tran<sup>a</sup>, Denis Bastianelli<sup>b</sup>,  
Harry Archimède<sup>c</sup>, Daniel Sauvant<sup>ad</sup>

<sup>a</sup>AFZ/ <sup>b</sup>CIRAD/<sup>c</sup>INRA/<sup>d</sup>AgroParisTech

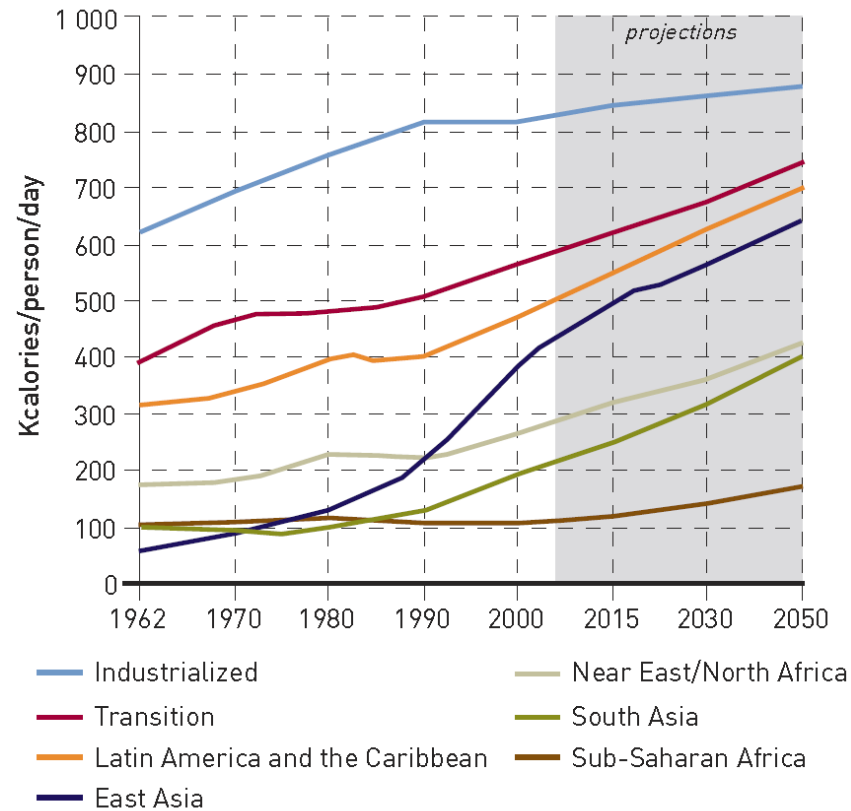
# The Feedipedia program

- Merging of **two projects**
- French Consortium
  - **INRA**: research
  - **CIRAD**: research (tropics)
  - **AFZ**: association (French feed database)
- **FAO**: Food and Agriculture Organization
  - Updating of **AFRIS** (Animal Feed Resources Information System)





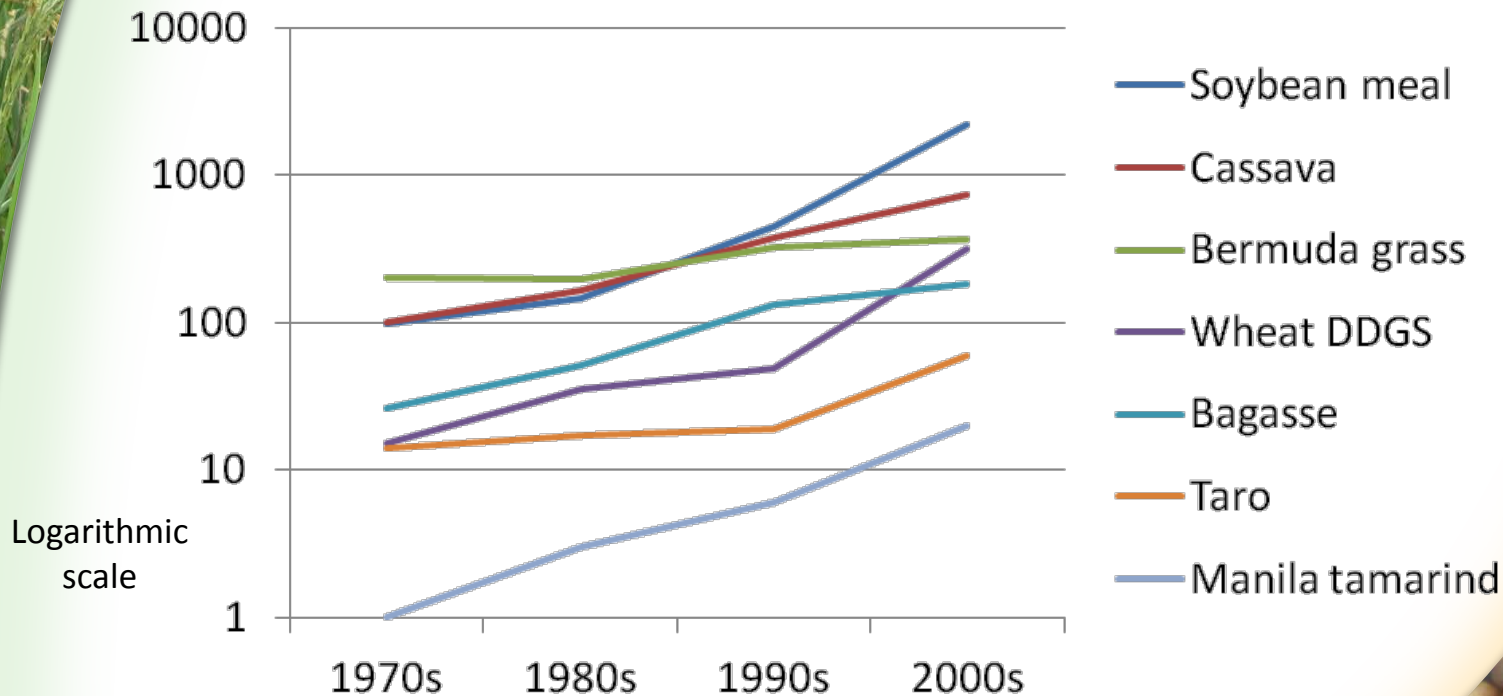
# Animal products consumption



Source, FAO 2006

# Production of feed-related information

- Number of scientific papers per decade
  - For each feed, a few hundred peer-reviewed papers at best in the 1970s, up to several thousands in the 2000s
  - Emerging and developing countries produce large numbers of feed-related papers





# Feed information

## New needs

- Accurate and updated information
- New productions (aquaculture)
- New feeds (biofuels byproducts, insects)
- Lesser-known resources
- Environmental concerns, animal welfare



# Objectives and expected results

- To meet the demand for **updated, reliable** and **comprehensive** feed information
  - Feeds not included in tables produced in temperate countries + forages
  - Conventional and non-conventional feeds
  - Large coverage of livestock species
- To help **identify, characterize** and **properly use** feed resources to sustainably develop the livestock sector.



# Feedipedia

Animal feed resources  
information system



- **An open access information system on animal feed resources**
- Information on the nature, occurrence, chemical composition, nutritional value, potential constraints and guide for safe use of about 1400 feeds
- Worldwide audience
  - Industry, livestock farmers, researchers, project planners, extension workers, education institutions and students



# Feedipedia team

- **AFZ** : 2 engineers
  - Project management, database and website development and management, datasheet writing and editing
- **INRA** et **CIRAD** : 23 researchers
  - Scientific experience, information collection, recommendations
  - Ruminants (15 people), poultry (2), pigs (4), rabbits (1), fish (1)

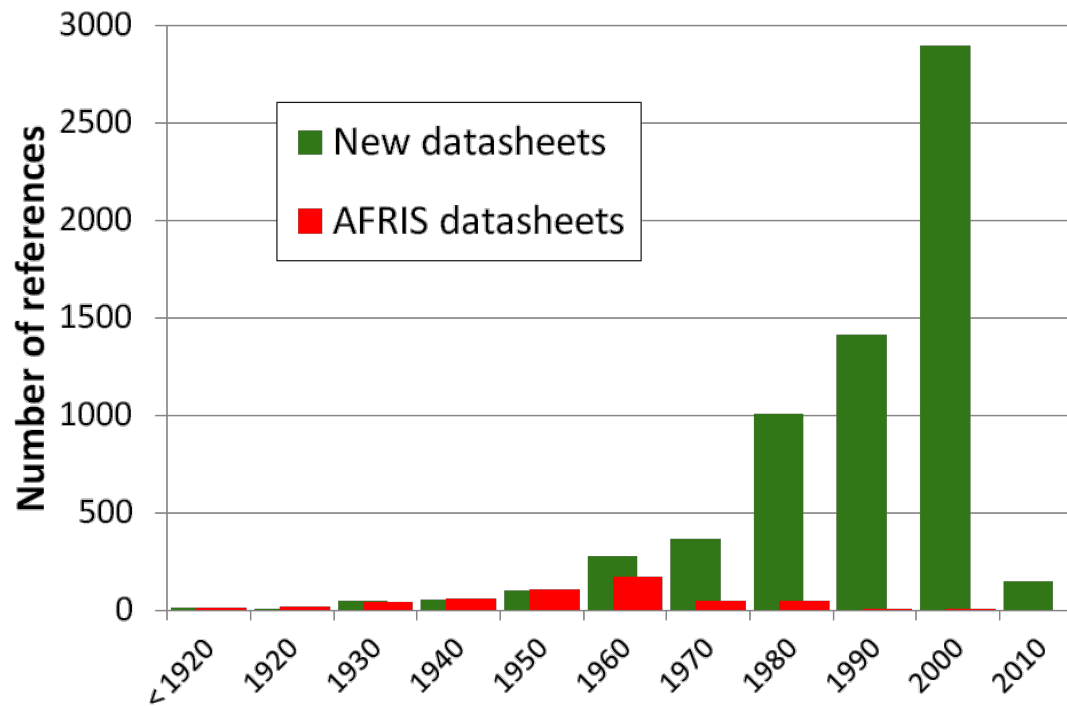


# A feed encyclopedia

- **Approx. 700 datasheets (in English)**
- **Qualitative information**
  - General information (names, description, distribution, forage management, potential constraints, processes and environmental impact)
  - Nutritional attributes
  - Feeding recommendations for the main livestock species
  - **Illustrations**
  - **Literature references**
- **Quantitative information**
  - **Tables of nutritive values**

# Literature references

- **10230** references in the website
- **50 %** published since 2000





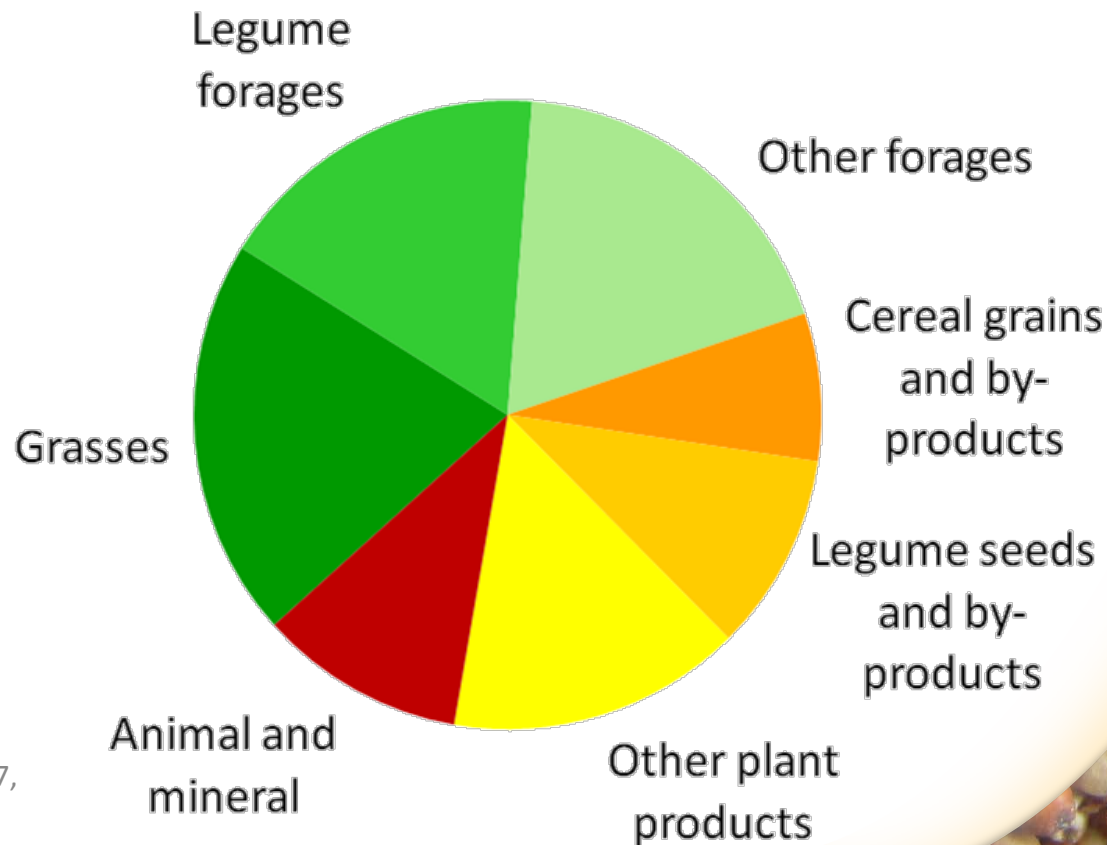
# Image collection

- 517 digital images
  - feed materials
  - process charts
- 123 images created by AFZ
- Most of the images are under a « free » license (Creative Commons) or in the public domain



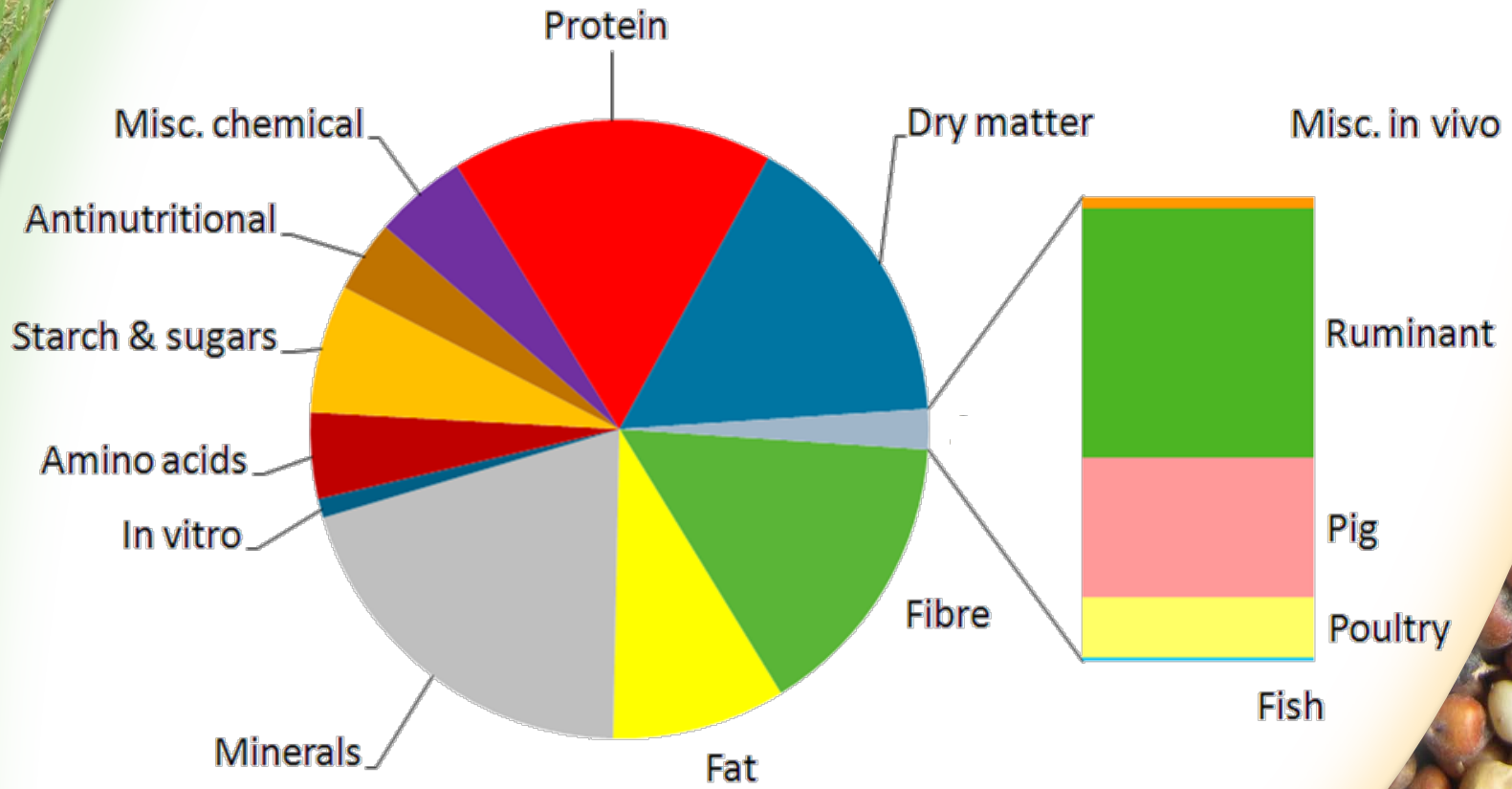
# Data collection

- 2.28 million raw data collected from the scientific literature and other databases
  - including 50,000 *in vivo* data
- 5900 feed types and 460,000 feed samples



# Data per category of parameter

98% chemical  
2% in vivo





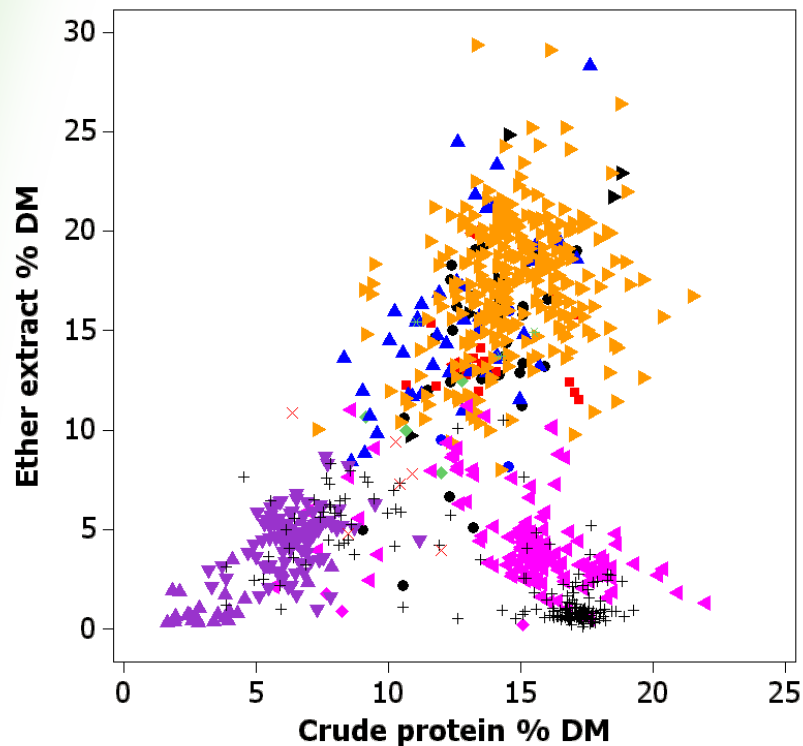
# Feed tables parameters

- **Proximate analysis:** dry matter, crude fibre, ether extract, ash, Van Soest, starch, sugars, gross energy
- **Minerals:** Ca, P, Mg, Na, K, Cu, Mn, Zn, Fe
- **Amino acids**
- **Secondary metabolites**
- **Ruminants:** DM, OM, N and energy digestibilities, DE and ME, N degradability parameters
- **Pig:** energy and N digestibility, DE, ME and NE
- **Poultry:** AMEn, TME
- **Rabbits:** energy digestibility and DE
- **Salmonids:** energy digestibility and DE

# Creation of feed tables

- Identification of feed groups
- Meta-analysis

**Rice brans: crude protein vs ether extract**





# Creation of feed tables

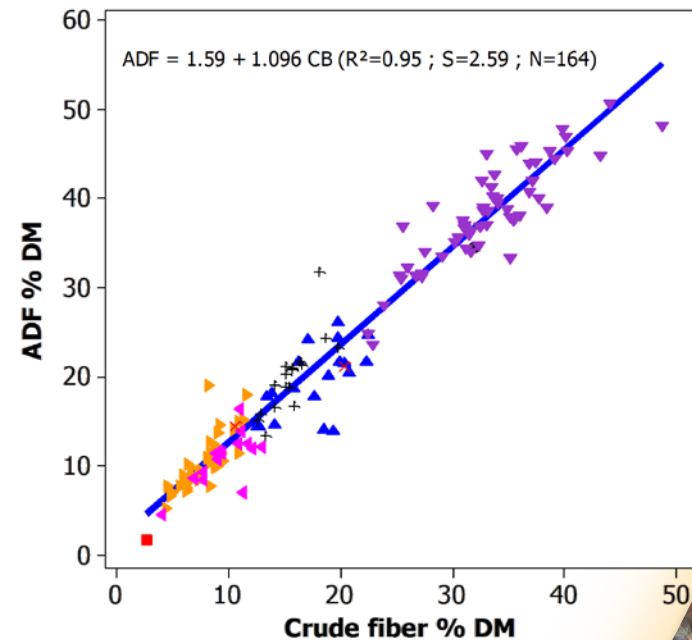
- Calculation of **raw statistics**
- **Use of equations**
  - Consistent profiles
    - Correct the bias due to differing numbers of observations: 2000 crude protein values, 500 crude fibre values and 50 ADF values
  - Calculate nutritional values
    - Digestibilities, energy



# Equations

- Prediction of chemical and *in vivo* parameters
- 3000 equations, 250 used in the tables
- Calculated from the database or obtained from the literature
  - INRA 1989, INRA-AFZ 2004, INRA 2007, EvaPig 2010 (pigs)

## Rice brans: crude fibre vs ADF



# Feed tables

## Coconut, copra, oilmeal, solvent extraction



Amino acids	Unit	Avg	SD	Min	Max	Nb
Lysine	% protein	2.1				1
Ruminant nutritive values	Unit	Avg	SD	Min	Max	Nb
Organic matter digestibility	%	72.4		69.9	72.4	2 *
Energy digestibility	%	70.8		65.8	70.8	2 *
Digestible energy	MJ/kg DM	13.2		12.2	13.2	2 *
Metabolizable energy	MJ/kg DM	10.5				*
Nitrogen digestibility	%	74.3		48.9	74.3	2 *
Nitrogen degradability, k=6%	%	70				1

# Website

- **An open access encyclopedia**
  - Under test since 2010
  - Open on **22<sup>nd</sup> of october 2012**
  - [www.feedipedia.org](http://www.feedipedia.org)
- **A collaborative tool** for authors and editors



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# Content

- 232 updated datasheets
- 4.5 pages (excluding tables and refs)
  - 50 refs/datasheet
  - 48% general information, 26% ruminants recommendations, 26% others species
- More than 600 tables of nutritive value



# Datasheets

4 tabs

**Feedipedia** Animal feed resources information system

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  - Other products

**Latin names**

Plant families  
Plant species

**Resources**

Bibliography  
Glossary

## Cassava peels, cassava pomace and other cassava by-products

Description and recommendations Tables References Image credits

### Common names

- Cassava peelings, cassava peels
- Cassava pomace, cassava bagasse, cassava bran, cassava pulp, cassava fibre, cassava starch residue
- Cassava sievate, garri sievate

### Species

*Manihot esculenta* Crantz [Euphorbiaceae]

### Synonyms

*Jatropha dulcis* J. F. Gmel., *Jatropha manihot* L., *Manihot aipi* Pohl, *Manihot dulcis* (J. F. Gmel.) Pax, *Manihot flabellifolia* Pohl, *Manihot leptopoda* (Müll. Arg.) D. J. Rogers & Appan, *Manihot manihot* (L.) Cockerell, nom. inval., *Manihot melanobasis* Müll. Arg., *Manihot palmata* Müll. Arg., *Manihot palmata* var. *leptopoda* Müll. Arg., *Manihot peruviana* Müll. Arg., *Manihot saxicola* Lanj., *Manihot tristis* Müll. Arg., *Manihot tristis* subsp. *saxicola* (Lanj.) D. J. Rogers & Appan, *Manihot utilissima* Pohl (USDA, 2009)

### Related feed(s)

- Cassava foliage
- Cassava tubers

### Description

The processing of cassava tubers yields the following by-products that can be valuable livestock feeds when properly processed (Aro et al., 2010):

- Cassava peels** can represent 5 to 15% of the root (Aro et al., 2010; Nwokoro et al., 2005a). They are obtained after the tubers have been water-cleansed and peeled off mechanically (Aro et al., 2010). They may contain high amounts of cyanogenic glycosides and have a higher protein content than other tuber parts (Tewe, 2004).
- Cassava pomace**, also called **cassava fibre**, **cassava bran**, **cassava bagasse**, **cassava starch residue** and **cassava pulp**: all these terms refer to the solid fibrous residue (up to 17% of the tuber) that remains after the flour or starch content has been extracted (Aro et al., 2010). The quality and appearance of those residues vary with plant age,

Names (common, Latin, synonyms)

Description



# Datasheets

Each product is described

Glossary

Images

On-line resources

- Books
- Journals
- Literature databases
- Plant and feed databases

Editor area

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and industrial equipment (Cereeda et al., 1987).

- **Cassava sievate** or **garri sievate** is the by-product of the production of garri (also spelled *gari* or *gary*), a popular West African food. Tubers are peeled, crushed and then fermented. The resulting product is then sieved and roasted. The sievate represents 15-17% of the root in weight (Nwokoro et al., 2005a).
- **Cassava stumps** are the ends trimmed off the cassava tubers as they are manually prepared for onward transmission into the rotary washer and peeler (Aro et al., 2010).
- **Cassava whey** is the liquid pressed out of the tuber after it has been crushed mechanically. The whey and the pomace may be mixed together and form an effluent (or slurry) (Aro et al., 2010).
- **Discarded tubers:** tubers that fail to meet the required standards for human consumption can be used for animal feeding. Discarded tubers are sometimes mixed with the stumps (Scapinello et al., 2010).

Distribution

## Distribution

Cassava by-products are generally found in the vicinity of factories where cassava tubers are processed into starch or flour.

## Processes

### Cassava peels

Fresh cassava peels have 3 main deficiencies: they spoil very quickly, contain high amounts of cyanogenic glycosides. They should thus be processed in order to reduce their cyanogenic glycoside content and to preserve their nutritive quality (Oboh, 2006; Salami et al., 2003; Tewe, 1992; Adegbola et al., 1985). Different processes are effective in reducing cyanogenic glycosides: sun-drying, ensiling and soaking + sun-drying have been assessed and have yielded satisfactory results (Salami et al., 2003; Tewe, 1992; Adegbola et al., 1985).

Good quality silage can be obtained after chopping the peels to equal lengths of about 2 cm for easy compaction, and wilting for 2 days to reduce moisture content from 70-75 % to about 40%. Under these conditions, cassava peel silage after 21 days was light brown in colour, firm in texture and had a pleasant odor. The pH was 4.4, and no fungal growth was observed (Asaolu, 1988 cited by Smith, 1988).

In Nigeria, drying cassava peels on black plastic sheets has been drawing the attention of smallholders as shown in the video below:



# Datasheets

## Forage management

## Forage management

Buffel grass needs time to establish and it should not be grazed before 42 days of plant age and should be cut up to 200 mm high, depending on establishment conditions (Cook et al., 2005). It should then be cut or grazed at 7 cm high and will stand continuous or rotational grazing and 6-8 week cutting intervals (FAO, 2010; Mannetje et al., 1992). As the maximum dry matter production occurs between 42 and 56 days of plant age and stem-leaf ratio increases rapidly with plant maturity, it has been proposed that buffel grass should be grazed from 42 to 56 days of age (Garcia et al., 1980). Buffel grass may also be sown with columbus grass (*Sorghum x almum*) as it establishes slower but for a longer period than this short-lived perennial. The association provides readily good quality pasture. Rhodes grass (*Chloris gayana*) and Guinea grass (*Megathyrsus maximus*) are also convenient companions for buffel grass (Mannetje et al., 1992).

Frequent grazing improves nitrogen content. When used for hay, it should be cut in the early flowering stage so that nutritive value does not drop. Fire can also be beneficial as it destroys old vegetation and the plant recovers and young leaves with higher nutritive value appear (FAO, 2010).

## Environmental impact

## Environmental impact

### Soil erosion control

Buffel grass is valuable for erosion control in that it is one of the best adapted grasses to semi-arid conditions. In Australia, it was successfully planted for revegetation and erosion control in parks, reserves and river catchment from the 1960s to the mid-1970s (Payne et al., 2004; Albrecht et al., 1997). Using buffel grass in combination with ponding banks in a severely degraded area increased grazing capacity 10-fold after five years in a Central Australia farm (Friedel et al., 2006). However, its tussocky nature does not allow for complete ground cover (FAO, 2010).

### Weed

Buffel grass is an aggressive grass due to its root system and allelopathic toxicity towards other seeds. It spreads readily and may



# Datasheets

## Ruminants

### Cassava peels

Cassava peels can be used as a roughage and as an energy feed in ruminant diets. However, sun drying, ensiling and fermentation should be used to prevent HCN poisoning when using bitter cassava varieties (Pipat Lounglawan et al., 2011; Smith, 1988). Cassava peels should not be fed alone, as their protein and mineral content cannot support optimum rumen function and productivity in ruminants, and their optimal utilization requires sources of readily fermentable protein and by-pass protein as well as micronutrients including sulphur, phosphorus, and B vitamin. Cassava peels are then a valuable feed, and significant increases of animal performances have been reported when they are added to ruminant diets (Smith, 1988).

### Digestibility and degradability

Cassava peels are highly digestible products, with reported values of 78% and 81% for DM and OM total tract digestibility respectively (Baah et al., 1999). DM degradability is also high, with reported values higher than 70% (Smith, 1988).

### Cattle

In Ghana, weight gains of 0.29 or 0.33 kg/day (vs 0.07 kg/day for the control diet) were recorded with cross-bred bullocks grazed and supplemented with dried or ensiled peels (Larsen et al., 1976). In an experiment with bulls in Vietnam, total DMI increased with the amount of cassava peels (total DMI = 0.009 DMI of the peels in kg/100 kg LW/d) while grass DMI decreased (grass DMI = -0.017 DMI of the peels in kg/100 kg LW/d + 2.15) (Pham Ho Hai et al., 2009). Because of their high degradability, cassava peels have been also used as a energy supplement in cattle: cassava peels could partly replace (30% of total DMI) energy concentrates, with no influence on the intake, digestibility, microbial efficiency, and nitrogen retention (Azevêdo et al., 2011).

**Pham Ho Hai et al., 2009. Livestock Research for Rural Development, 21 (9): 156**

### Reference

Pham Ho Hai; Preston T. R., 2009. Effect of dried cassava peelings on the rumen environment of cattle fed natural grasses. Livest. Res. Rural Dev., 21 (9): 156

All references can be clicked on



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## Cassava peels, cassava pomace and other cassava by-products

● Description and recommendations ● Tables ● References ● Image credits

### Tables of chemical composition and nutritional value

#### Cassava pomace, dehydrated



Main analysis	Unit	Avg	SD	Min	Max	Nb
Dry matter	% as fed	89.4	3.0	83.5	94.8	11
Crude protein	% DM	2.3	0.7	1.1	3.4	11
Crude fibre	% DM	16.7	4.4	12.1	26.9	9
NDF	% DM	35.5	11.9	7.3	43.3	8
ADF	% DM	20.8	11.4	3.3	35.2	8
Ether extract	% DM	0.7	0.6	0.2	2.0	8
Ash	% DM	4.9	1.3	2.7	6.5	9
Starch	% DM	52.3	7.0	42.8	64.0	8
Sugars	% DM	3.3				1
Gross energy	MJ/kg DM	16.2	1.1	14.7	17.5	6
Minerals	Unit	Avg	SD	Min	Max	Nb
Calcium	g/kg DM	7.7	2.6	3.8	11.9	6
Phosphorus	g/kg DM	0.3	0.1	0.2	0.5	6
Amino acids	Unit	Avg	SD	Min	Max	Nb
Alanine	% protein	3.4				1
Arginine	% protein	3.4				1
Aspartic acid	% protein	5.1				1

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- Tables
- References
- Image credits

Reference tab

### References

Abrahão, J. J. dos Santos; Prado, I. N. do; Perotto, D.; Zeoula, L. M.; Lançanova, J. A. C.; Lugão, S. M. B., 2006. Replacing corn grain with a wet byproduct from cassava starch extraction on apparent digestibility of nutrients in beef cattle. *Rev. Bras. Zootec.*, 35 (4): 1447-1453

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Agunbiade, J. A.; Adeyemi, O. A.; Fasina, O. E.; Bagbe, S. A., 2001. Fortification of cassava peel meals in balanced diets for rabbits. *Nigerian J. Anim. Prod.*, 28 (2): 167-173

Access full reference by clicking

Links to documents

# Searches in Feedipedia

Select all feeds

Select species

Enter name

The screenshot shows the Feedipedia search interface. On the left, a sidebar lists feed categories: Feed categories, All feeds, Forage plants, and Feeds of animal origin. The 'List of feeds' section is active, showing a search form with fields for Category, Title, Common name, Latin name, Latin name synonym, and Completion status. A callout 'Select all feeds' points to the 'All feeds' category. A callout 'Select species' points to the 'Latin name' dropdown menu. A callout 'Enter name' points to the 'Common name' input field. A callout 'Select category' points to the 'Category' dropdown menu. A callout 'Search for feeds in the list' points to the search results table.

**List of feeds**

Category:  Title:  Common name:

Latin name:  Latin name synonym:  Completion status:

Apply  
Reset

**List of feeds**

Category:  Title:  Common name:

Latin name:  Latin name synonym:  Completion status:

Apply  
Reset

**A**

Acacia (Acacia brevispica)	African stylo ( <i>Stylosanthes fruticosa</i> )
Acacia (Acacia galpinii)	African yam bean ( <i>Sphenostylis stenocarpa</i> )
Acacia (Acacia laeta)	Agati ( <i>Sesbania grandiflora</i> )



# Links to free on-line resources

**Resources**

- Bibliography
- Glossary
- Images
- On-line resources
  - Books
  - Journals
  - Literature databases
  - Plant and feed databases

Select resources on left menu

Access the book by clicking on the title

### On-line resources

All | Books | Literature databases | Plants, feeds and crops databases

Resource type: <Any> | Sort by: Posting date | Order: Asc | Apply | Reset

#### Books

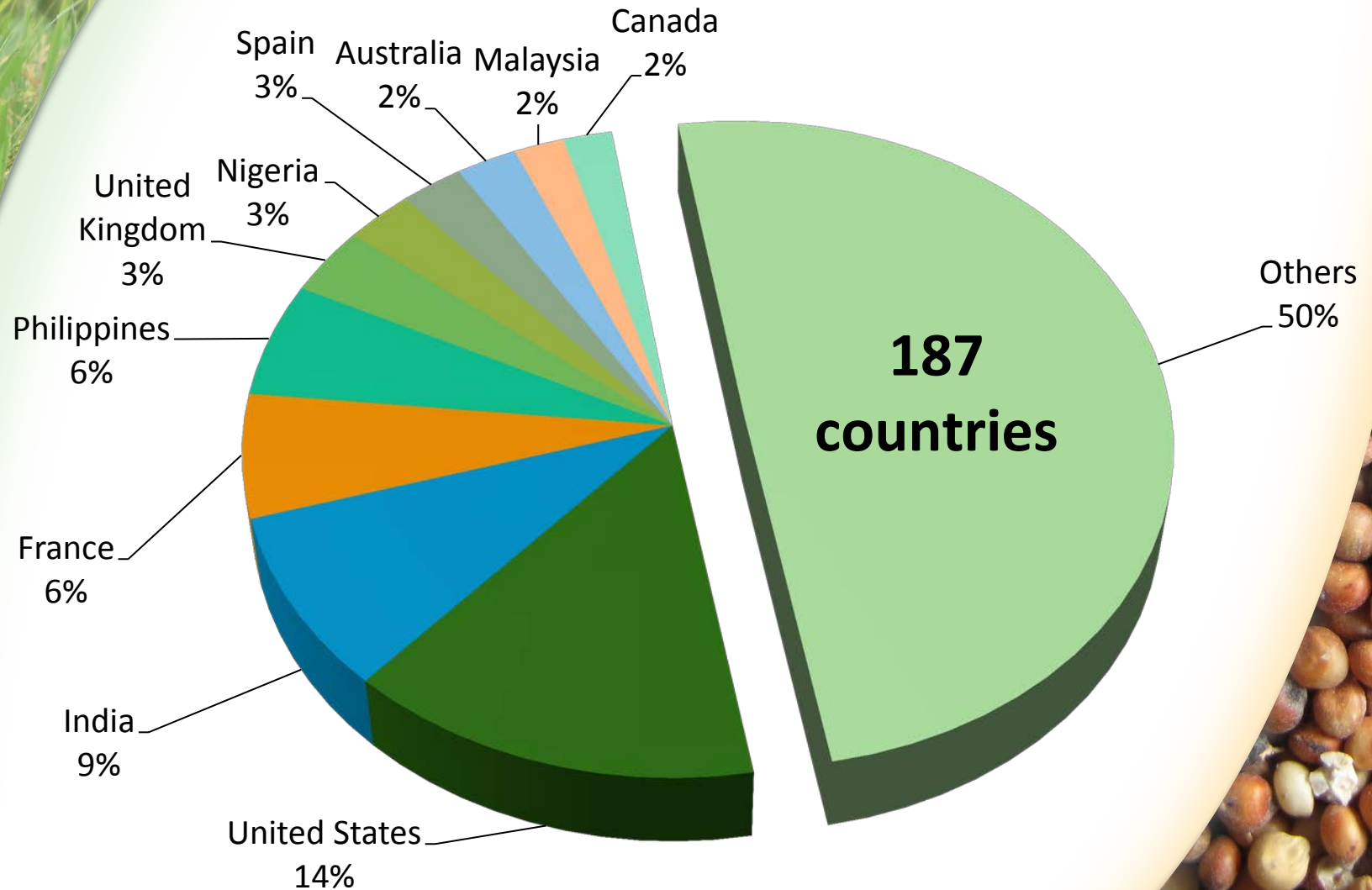
Title	Summary	Posted
 <b>The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition - FAO, WFP and IFAD, 2012. FAO, Rome</b>	This publication presents new estimates of undernourishment that show that progress in reducing hunger has been better than previously believed, and that it may be possible to reach the MDG hunger target by 2015. However, eradication of hunger remains a major global challenge. This year's report also discusses the role of economic growth in reducing undernourishment.	October 11, 2012
 <b>Balanced feeding for improving livestock productivity. Increase in milk production and nutrient use efficiency and decrease in methane emission - FAO, 2012. by M.R. Garg. FAO Animal Production and Health Paper No. 173. Rome, Italy</b>	This publication outlines an approach used by National Dairy Development Board (India) to balance rations in smallholder dairy farms in order to enhance milk production with existing feed resources, using transfer of scientific knowledge in an easy-to-use and easy-to-implement manner.	October 9, 2012



# Audience since November, 7 – 2012

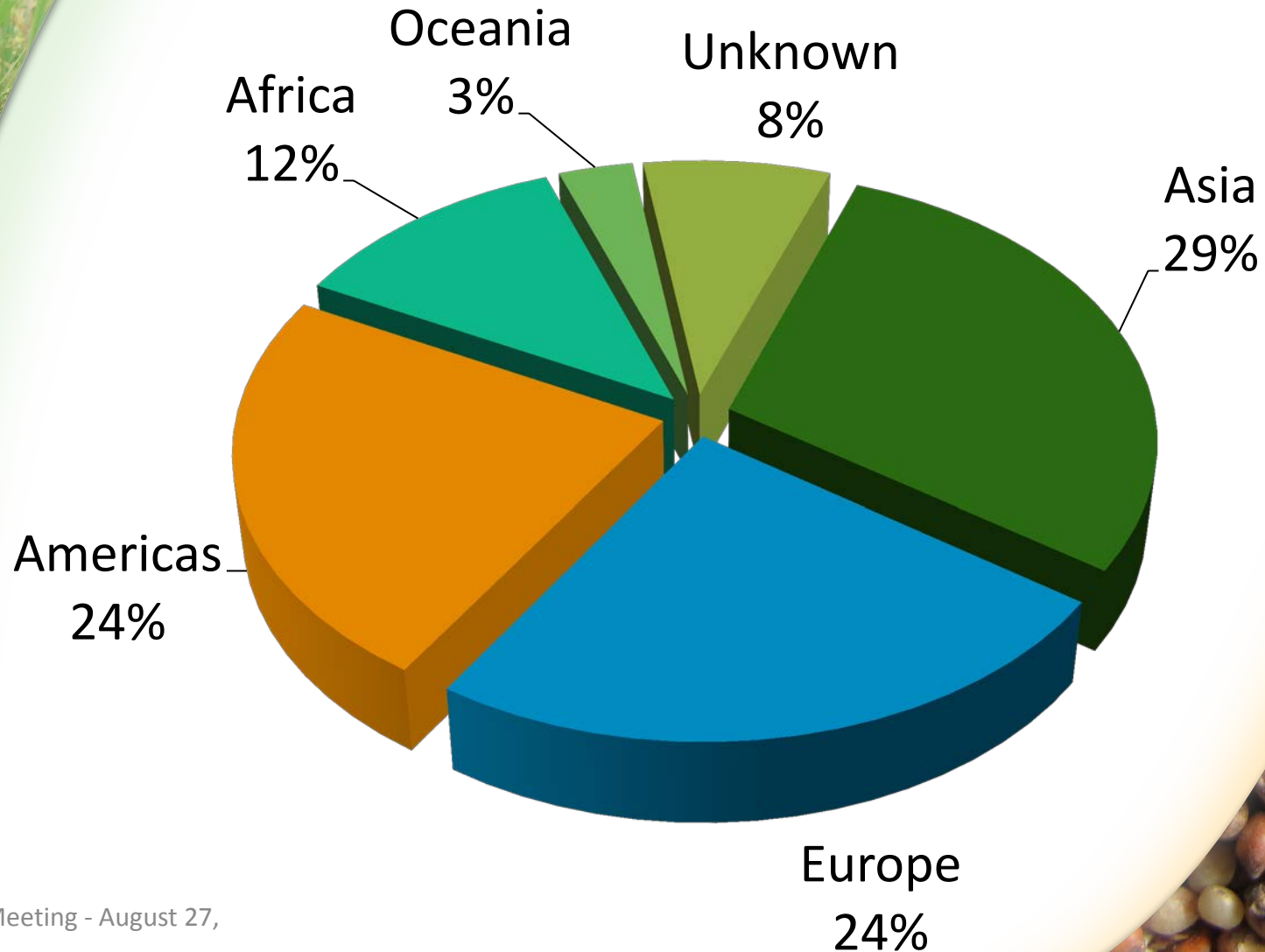
- 650,000 page views
- 220,000 visits
- 155,000 unique visitors
  - **28.4% returning visitors**
- About 1000 daily visits (work days)

# An international audience

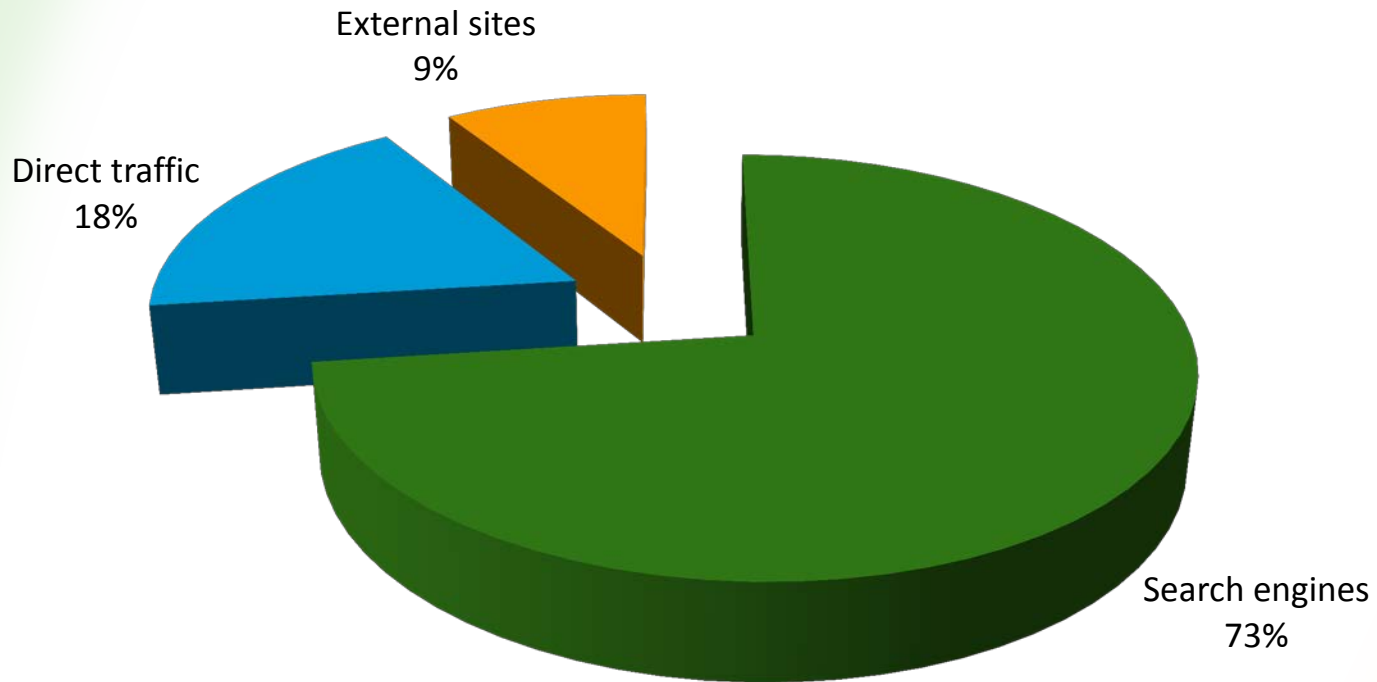




# An international audience



# Traffic sources





About 9,350,000 results (0.24 seconds)

[Sunflower meal | Feedipedia - Animal Feed Resources Information](http://www.feedipedia.org/node/732)  
[www.feedipedia.org/node/732](http://www.feedipedia.org/node/732) ▾  
 Sunflower meal is the by-product of the extraction of oil from sunflower seeds. In terms of production, it is the 4th most important oil meal after soybean meal, ...

[PDF] [Sunflower Meal in Beef Cattle Diets - NDSU - North Dakota State ...](http://www.ag.ndsu.edu/archive/carringt/.../Sunflower%20Meal%20Poster.pdf)  
[www.ag.ndsu.edu/archive/carringt/.../Sunflower%20Meal%20Poster.pdf](http://www.ag.ndsu.edu/archive/carringt/.../Sunflower%20Meal%20Poster.pdf) ▾  
 Sunflower Meal in Beef Cattle Diets. INTRODUCTION. Sunflower meal is the fourth largest source of supplemental protein for livestock feeding behind soybean.

[Images for sunflower meal](#) - Report images



	Crude Protein	Crude Fat	Crude Fiber	Crude Ash	Moisture
100% Sunflower Meal	45.0	10.0	10.0	10.0	10.0
90% Sunflower Meal	40.5	9.0	9.0	9.0	9.0
80% Sunflower Meal	36.0	8.0	8.0	8.0	8.0
70% Sunflower Meal	31.5	7.0	7.0	7.0	7.0
60% Sunflower Meal	27.0	6.0	6.0	6.0	6.0
50% Sunflower Meal	22.5	5.0	5.0	5.0	5.0
40% Sunflower Meal	18.0	4.0	4.0	4.0	4.0
30% Sunflower Meal	13.5	3.0	3.0	3.0	3.0
20% Sunflower Meal	9.0	2.0	2.0	2.0	2.0
10% Sunflower Meal	4.5	1.0	1.0	1.0	1.0



[National Sunflower Association : Meal/Wholeseed Feeding](http://www.sunflowernsa.com/wholeseed/)  
[www.sunflowernsa.com/wholeseed/](http://www.sunflowernsa.com/wholeseed/) ▾

Meal/Wholeseed Feeding Sunflower meal is the by-product of the oil extraction process. Oil is the majority value of sunflower seed and meal is considered a ...

[PDF] [The Use of Sunflower Meal in Livestock Diets - Australian Oilsee...](http://www.australianoilseeds.com/.../The_Use_of_Sunflower_Meal_in_Live...)  
[www.australianoilseeds.com/.../The\\_Use\\_of\\_Sunflower\\_Meal\\_in\\_Live...](http://www.australianoilseeds.com/.../The_Use_of_Sunflower_Meal_in_Live...) ▾  
 Sunflower Meal in Livestock Diets. Presentation Overview. • Oilseed meal production and consumption. • Nutrient composition of sunflower meal. • Comparison ...

# Top Google rankings

- First page for major feeds including sunflower meal, copra meal, palm kernel meal etc.
- Top rank in Google search results for numerous feed plants

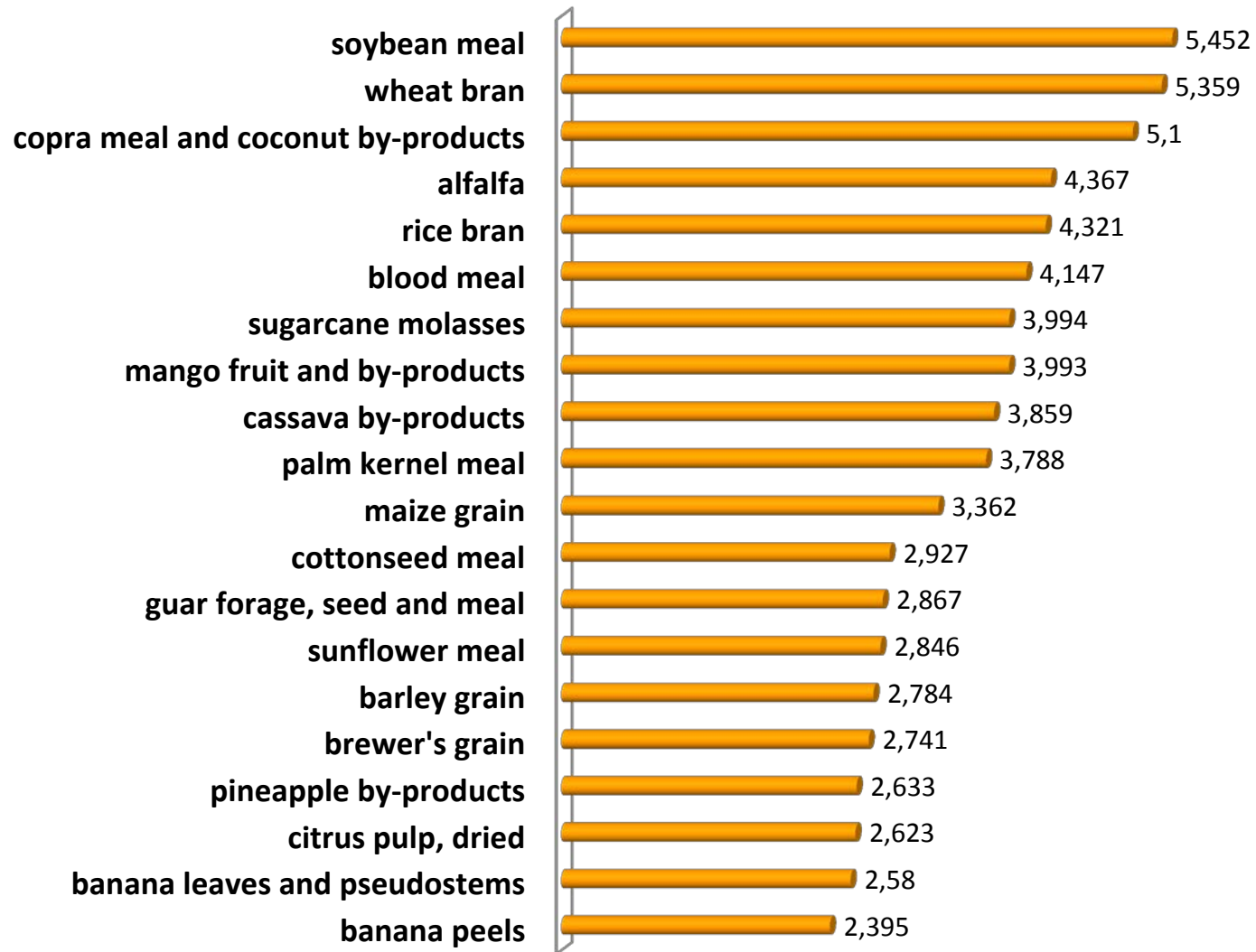




# Examples of queries

- [www.google.com/search?q=content+of+banana+trunk](http://www.google.com/search?q=content+of+banana+trunk)
- [www.google.com/search?q=cassava+tubers+as+swine+feed](http://www.google.com/search?q=cassava+tubers+as+swine+feed)
- [www.google.co.in/search?q=Benefits+of+supplementation+of+silkworm+pupae+meal](http://www.google.co.in/search?q=Benefits+of+supplementation+of+silkworm+pupae+meal)
- [www.google.co.in/search?q=chemical+composition+of+shorea+robusta+leaves](http://www.google.co.in/search?q=chemical+composition+of+shorea+robusta+leaves)
- [www.google.co.bw/search?q=use+of+sunflower+seed+cake+in+creep+diet](http://www.google.co.bw/search?q=use+of+sunflower+seed+cake+in+creep+diet)
- [www.google.es/search?q=chicken+feed+sweet+potato+meal](http://www.google.es/search?q=chicken+feed+sweet+potato+meal)
- [www.google.com.lb/search?q=olive+cake+waste+as+animal+food](http://www.google.com.lb/search?q=olive+cake+waste+as+animal+food)
- [www.bing.com/search?q=sugarcane+by+products+and+it+is+used+in+ruminant+feed+in+sudan](http://www.bing.com/search?q=sugarcane+by+products+and+it+is+used+in+ruminant+feed+in+sudan)

# Top 20 feeds





# Potential developments

- Dissemination
  - Specialized guides or manuals
    - Regional tables
    - Papers or e-books
    - Mobile apps for local needs
  - Learning tools : booklets, course manuals, quizz...
  - Feed Forum : questions/answers, suppliers directory...
  - Development of software for calculation of nutritive value in national unit systems
- Beyond nutritive values...
  - environmental database, multi-criteria evaluation, reference for farm system evaluation, sustainable use of biodiversity



**Thanks for your attention**  
**See you soon on**

**[www.feedipedia.org](http://www.feedipedia.org)**

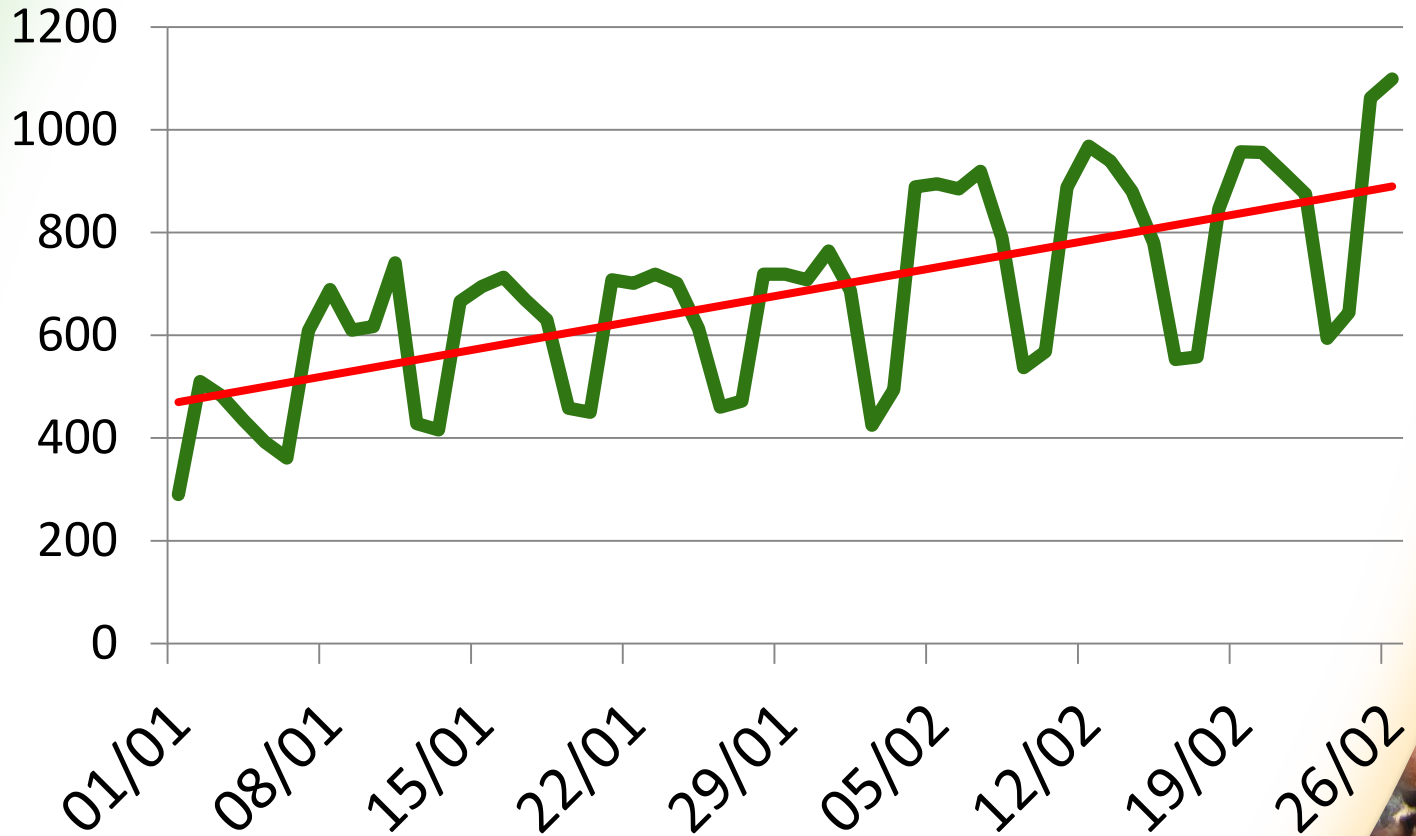


[www.facebook.com/feedipedia](http://www.facebook.com/feedipedia)



[twitter.com/feedipedia](https://twitter.com/feedipedia)

# Daily visits





# Why support Feedipedia

- Feedipedia is a **unique, open access resource** on feeds and feeding
- Feedipedia will become a **go-to technical and scientific reference** for many feeds
- Feedipedia is **fact-based and neutral**, maintained by FAO and European scientific institutions
- **Feedipedia will help people to optimize the use of animal feed resources for better animal production and better animal products**



# Project management



AFZ only

AFZ / INRA  
CIRAD / FAO






# Useful information at the bottom of the datasheet

## Feed categories

- Other forage plants
- Roots, tubers and by-products
- Plant products and by-products

## Citation

Heuzé V., Tran G., Bastianelli D., Archimède H., Lebas F., Régnier C., 2012. *Cassava peels, cassava pomace and other cassava by-products*. Feedipedia.org. A programme by INRA, CIRAD, AFZ and FAO. <http://www.feedipedia.org/node/526> Last updated on October 12, 2012, 11:24

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**Vue d'ensemble**

Désormais, les rapports "Analyse en temps réel" tiennent compte de vos filtres par profil !

Créer un raccourci

Actuellement

# 15

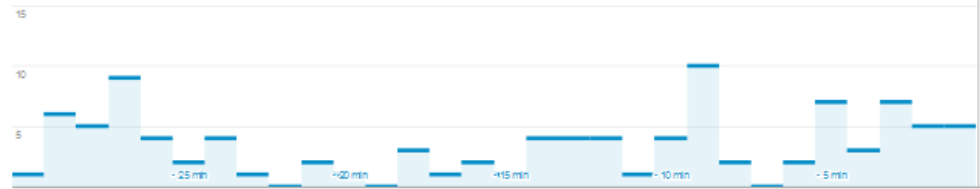
visiteurs actifs sur le site

■ NOUVEAU ■ CONNU



**Pages vues**

Par minute



Par seconde



**Principaux sites référents :**

	Source	Visiteurs actifs
1	granjaonline.es	1
2	inra.fr	1

**Principaux réseaux sociaux sources :**

Source	Visiteurs actifs
Aucune donnée n'est disponible pour cet affichage.	

**Mots clés les plus courants :**

	Mot clé	Visiteurs actifs
1		3
2	(not provided)	2
3	"shrimp shell" for pig	1
4	bambusa bambos	1
5	biko/ntep 2000	1
6	cotton seed hulls	1
7	feedpedita	1
8	fooder beet and feeding animals	1
9	matzebran feed to cattle	1
10	nutritional composition of figs	1

**Principales pages actives :**

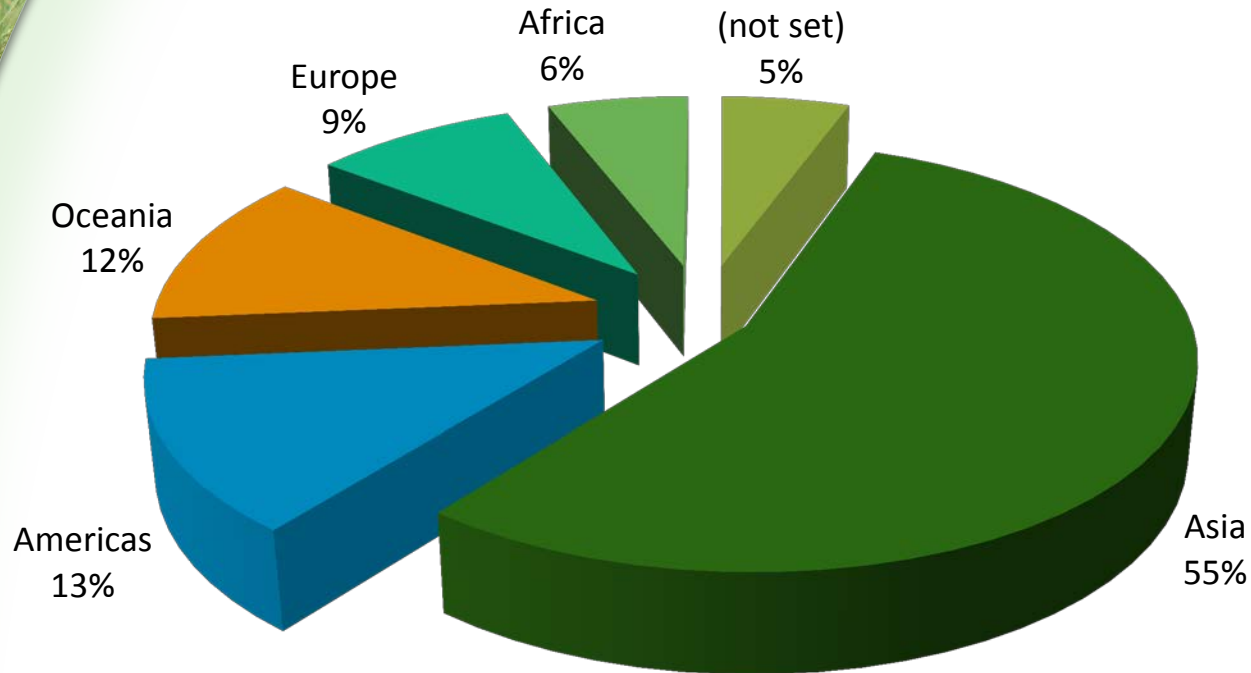
	Page active	Visiteurs actifs
1	/	6.67%
2	/content/about-feedpedita	6.67%
3	/content/partners	6.67%
4	/node/11585	6.67%
5	/node/150	6.67%
6	/node/1981	6.67%
7	/node/39	6.67%
8	/node/46	6.67%
9	/node/496	6.67%
10	/node/534	6.67%

**Principales zones géographiques :**

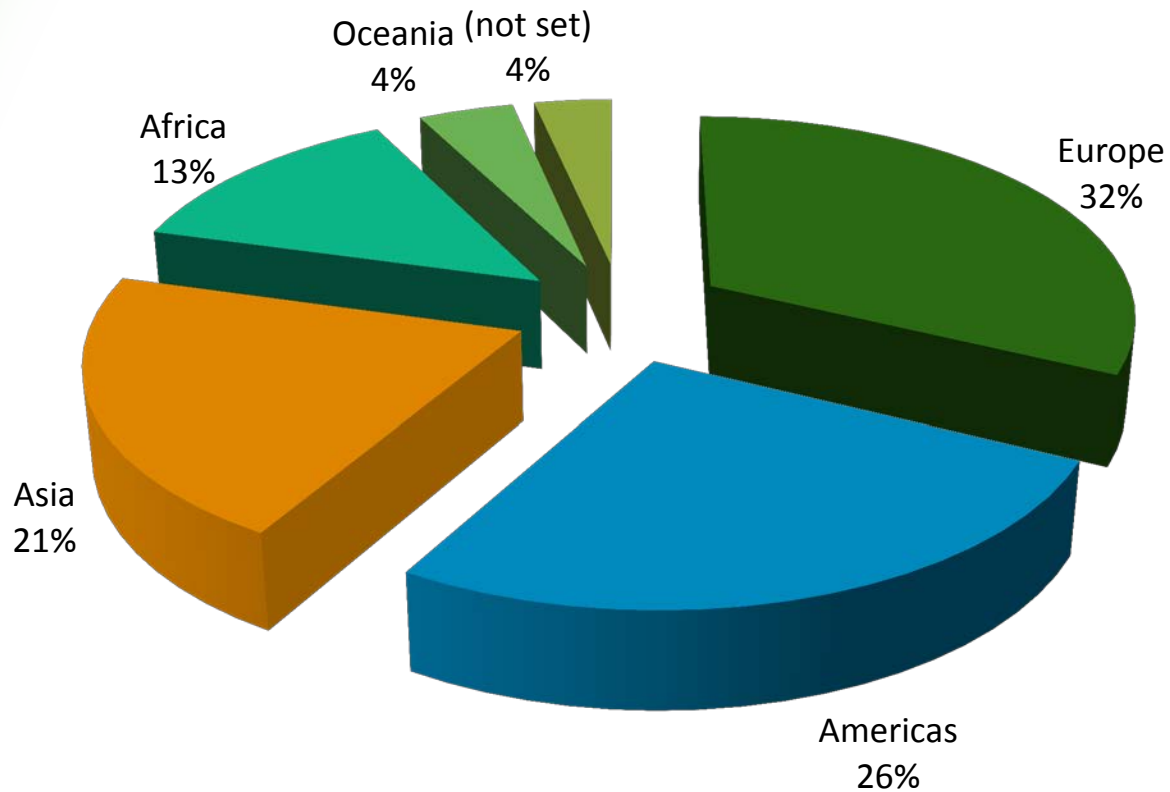





# Audience for copra meal



# Audience for alfalfa



### Automatic translation

 Sélectionner une langue ▼

### Feed categories

#### All feeds

##### Forage plants

- Cereal and grass forages
- Legume forages
- Forage trees
- Aquatic plants
- Other forage plants

##### Plant products/by-products

- Cereal grains and by-products
- Legume seeds and by-products
- Oilseeds and by-products
- Fruits and by-products
- Roots, tubers and by-products
- Sugar processing by-products
- Plant oils and fats
- Other plant by-products

##### Feeds of animal origin

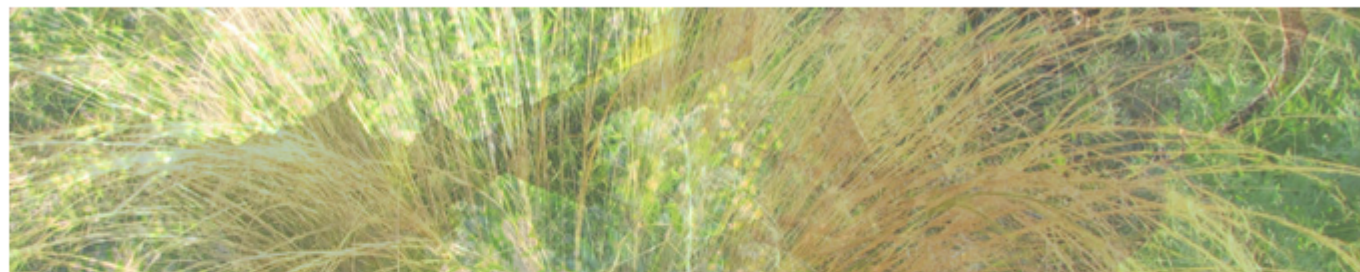
- Animal by-products
- Dairy products/by-products
- Animal fats and oils

##### Other feeds

- Minerals
- Other products

### Latin names

### Plant and animal families



## Feedipedia: An on-line encyclopedia of animal feeds

Feedipedia is an open access information system on animal feed resources that provides information on nature, occurrence, chemical composition, nutritional value and safe use of nearly 1400 worldwide livestock feeds. It is managed jointly by INRA, CIRAD, AFZ and FAO.

The main objective of Feedipedia is to provide extension and development workers, planners, project formulators, livestock farmers, science managers, policy makers, students and researchers with the latest scientific information to help them identify, characterize and properly use feed resources to sustainably develop the livestock sector.

This is particularly important in emerging and developing countries

## Sustainable Animal Diets - FAO Survey

Can we move towards "Sustainable animal diets"? Give your opinion by answering this FAO survey until 10 August 2013 in **English**, **French** or **Spanish**. You will receive a report of the survey analysis and a CD-ROM containing FAO publications in the area of feeding, feed and feed safety and other FAO publications. [Click here](#) to read more about the survey.

## Explore Feedipedia

[Click here](#) to see the list of 232 completed datasheets.



### Tweets

 Follow

 **Feedipedia** @Feedipedia 16 Aug  
New: Caribbean stylo (*Stylosanthes hamata*), a tropical legume used for pasture and hay in the Caribbean, South... [fb.me/1WeG7WYdt](https://fb.me/1WeG7WYdt)

 **Feedipedia** @Feedipedia 15 Aug  
New: Barley forage including whole crop barley, barley silage and barley straw [feedipedia.org/node/432](https://feedipedia.org/node/432) [fb.me/X5r0vqlA](https://fb.me/X5r0vqlA)

 **Feedipedia** @Feedipedia 13 Aug  
New: Mung bean (*Vigna radiata*). [feedipedia.org/node/428](https://feedipedia.org/node/428)

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