
Feedipedia
Animal feed resources information system
INRA
cirad
Home
About Feedipedia
Team
Partners
Support Feedipedia
Contact us
Search feedipedia.org
Go!
Automatic translation
Sélectionner une langue
Feed categories
All feeds
Forage plants
Grasses
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
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.
Explore Feedipedia
Click here to see the list of 205 completed datasheets.
Recent publications
Feed Assessment Tool (FEAST) - ILRI, 2012. ILRI
Feed Assessment Tool (FEAST) is a systematic method to assess local feed resource availability and use. It helps in the design of intervention strategies aiming to optimize feed utilization and animal production. The tool comprises two main elements
Managing cover crops profitably (3rd edition) - SARE, 2008. In: Clark (Ed.), Diane Publishing, 2008
Managing Cover Crops Profitably provides


Feedipedia : une encyclopédie mondiale et en ligne des matières premières et des fourrages destinés aux animaux d'élevage
Gilles Tran, Valérie Heuzé, Daniel Sauvant
Association française de zootechnie
Journée AFZ – 30 janvier 2013
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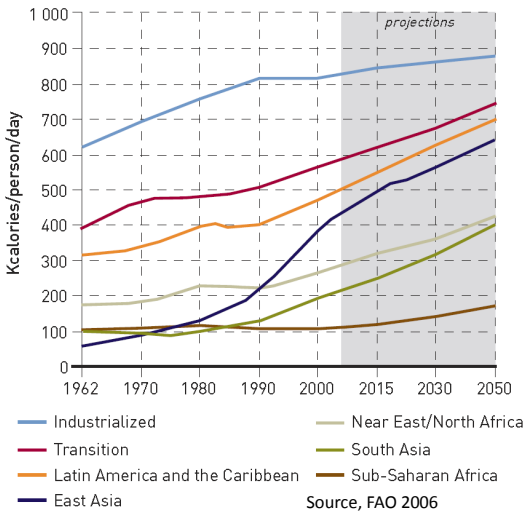
Association française de zootechnie

Consommation de produits animaux



Source, FAO 2006

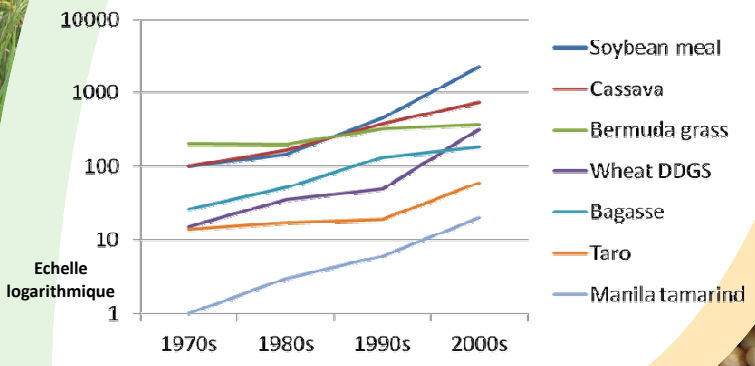
Le programme Feedipedia

- 2 **projets**
- Le consortium français
  - **INRA**
  - **CIRAD**
  - **AFZ**

- **FAO**: Food and Agriculture Organization
  - Mise à jour d'**AFRIS** (Animal Feed Resources Information Centre)

Une information en croissance exponentielle

- Articles scientifiques par décennie
  - De quelques dizaines d'articles par aliment dans les années 1970 à plusieurs milliers dans les années 2000
  - Contribution accrue des pays émergents et en développement



Information sur les ressources alimentaires : les nouveaux besoins

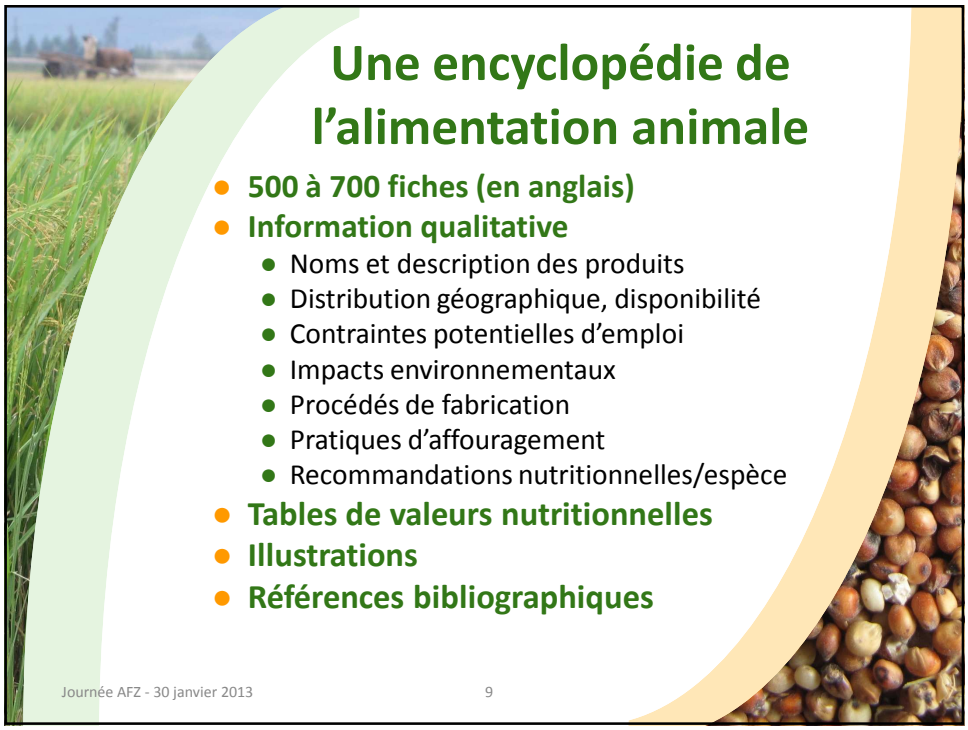
- Informations à jour, plus complètes et plus précises, mieux tracées
- Nouvelles productions (aquaculture)
- Aliments émergents (co-produits des bioénergies, sources alternatives de protéines)
- Utilisation de ressources non conventionnelles
- Prise en compte des services écosystémiques de l'élevage: impacts environnementaux des aliments et fourrages… vers une approche multi-critères des aliments

Feedipedia Animal feed resources information system

- **Un système d'information sur les ressources alimentaires des animaux d'élevage**
  - Information synthétique sur la nature, la distribution, la composition et la valeur nutritionnelle, les contraintes d'utilisation et les bonnes pratiques pour plus de 1400 aliments à terme.
- **Un référentiel commun pour une audience mondiale**
  - Industrie (produits animaux, alimentation animale)
  - Recherche et formation
  - Développement agricole
  - Eleveurs

Objectifs du programme

- Répondre à la demande d'informations **actualisées, fiables** et **complètes** sur les aliments du bétail en régions chaudes et tempérées:
  - Aliments absents des bases de données des régions tempérées
  - Aliments conventionnels et non conventionnels
  - Toutes espèces d'animaux de rente.
- Permettre une meilleure **identification, caractérisation et utilisation** des ressources alimentaires pour un développement durable du secteur des productions animales.



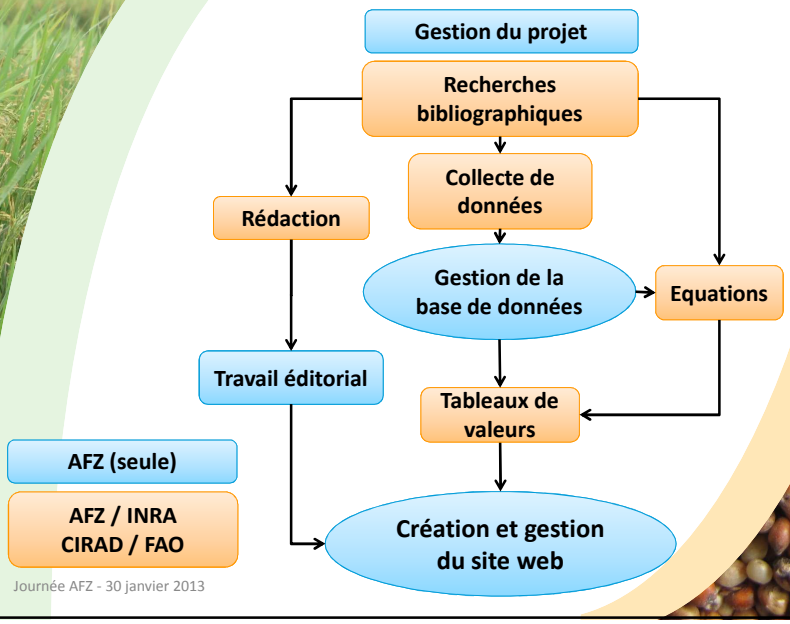
Une encyclopédie de l'alimentation animale

- **500 à 700 fiches (en anglais)**
- **Information qualitative**
  - Noms et description des produits
  - Distribution géographique, disponibilité
  - Contraintes potentielles d'emploi
  - Impacts environnementaux
  - Procédés de fabrication
  - Pratiques d'affouragement
  - Recommandations nutritionnelles/espèce
- **Tables de valeurs nutritionnelles**
- **Illustrations**
- **Références bibliographiques**

Equipe de travail

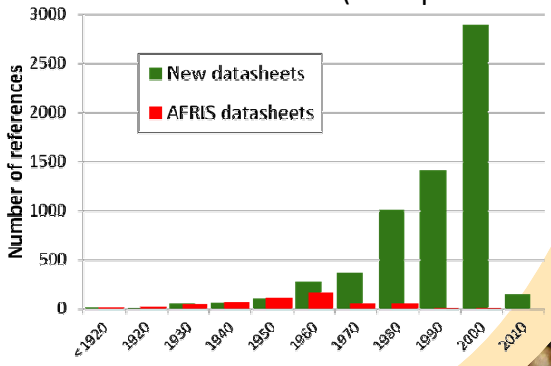
- **AFZ** : 2 ingénieurs
  - Administration du projet, construction et développement de la base de données et du site web, rédaction de contenus et travail éditorial
- **INRA** et **CIRAD** : 21 chercheurs
  - Expertise scientifique, collecte d'information, rédaction des recommandations nutritionnelles
  - Ruminants (13 chercheurs), volailles (2), porcs (4), lapins (1), poissons (1)

Pilotage du projet



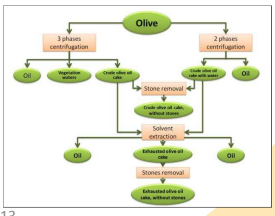
Collecte d'information qualitative

- Articles scientifiques, articles de vulgarisation, littérature grise
  - **9300** références sur le site (**50 %** publiées après 2000)



Collecte d'images

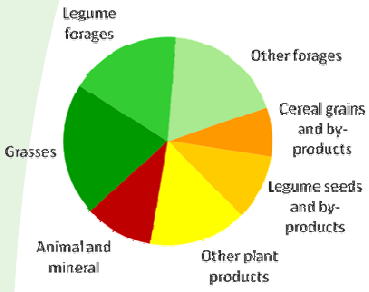
- 450 **illustrations**
  - photos
  - Diagrammes de fabrication
- 120 images créées par l'AFZ
- Plus de 300 images sous licence libre (Creative Commons) ou dans le domaine public



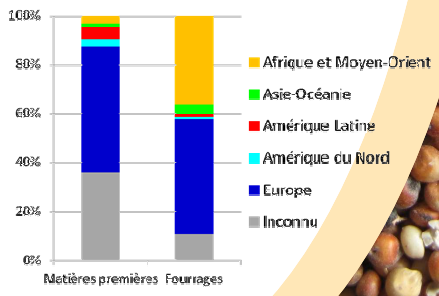
Collecte d'information quantitative

- Sources: bases de données, littérature
- 2,25 millions de données

5500 types d'aliments



460000 échantillons

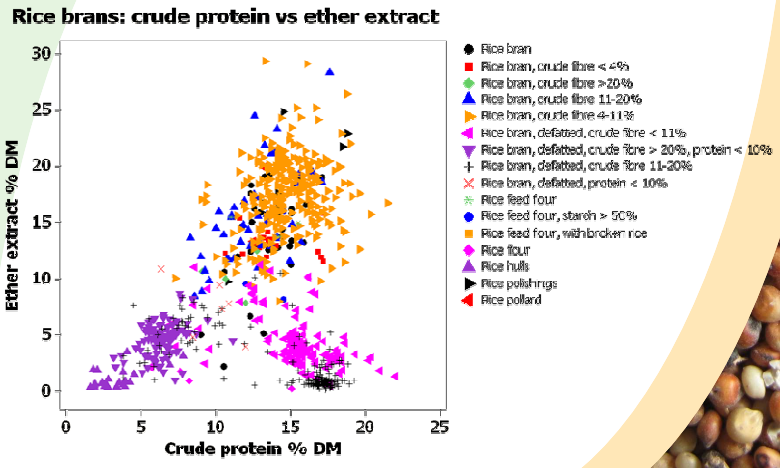


Rédaction des fiches

- Synthèse des références bibliographiques collectées pour chaque fiche
- Recommandations écrites par les scientifiques INRA et CIRAD spécialistes de chaque espèce animale, ainsi que par l'AFZ
- Parties introductives rédigées par l'AFZ
- Travail éditorial assurant la cohérence des textes

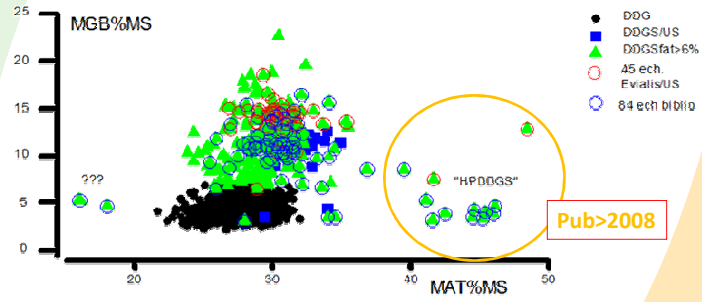
Etude des matières premières

- Caractérisation des groupes d'aliments



Etude des matières premières

- Corn distillers



Source : Daniel Sauvant

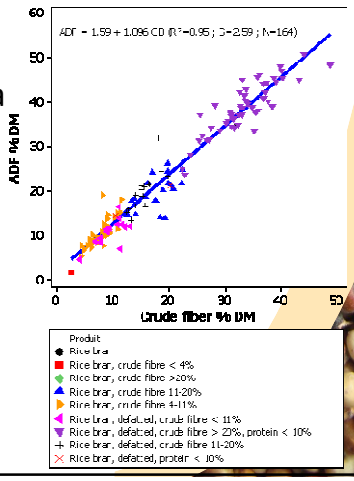
Création des tableaux

- Calcul des **statistiques brutes**
- **Utilisation d'équations**
  - Etablissement de vecteurs de composition cohérents
    - Correction des biais liés à des nombres de données différents entre paramètres observés: 2000 valeurs de MAT, 500 valeurs de fibres brutes et 50 valeurs d'ADF
  - Calcul des valeurs nutritionnelles
    - Digestibilités, énergies

Equations

- Prédiction des paramètres chimiques et *in vivo*
- Plus de 200 équations utilisées pour les tableaux
- Calculées à partir de la base de données ou tirées de la littérature
  - INRA 1989, INRA-AFZ 2004, INRA 2007, EvaPig 2010

Rice brans: crude fibre *vs* ADF



Site web

- **Outil collaboratif** à l'usage des rédacteurs et des éditeurs
- **Outil de diffusion** libre d'accès pour le public
  - En test public depuis 2010
  - Ouvert le **22 octobre 2012**
  - sur **www.feedipedia.org**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INRA
cirad
Home
About Feedipedia
Team
Partners
Support Feedipedia
Contact us
Search feedipedia.org
Go!
Automatic translation
Sélectionner une langue
Feed categories
All feeds
Forage plants
Grasses
Legume forages
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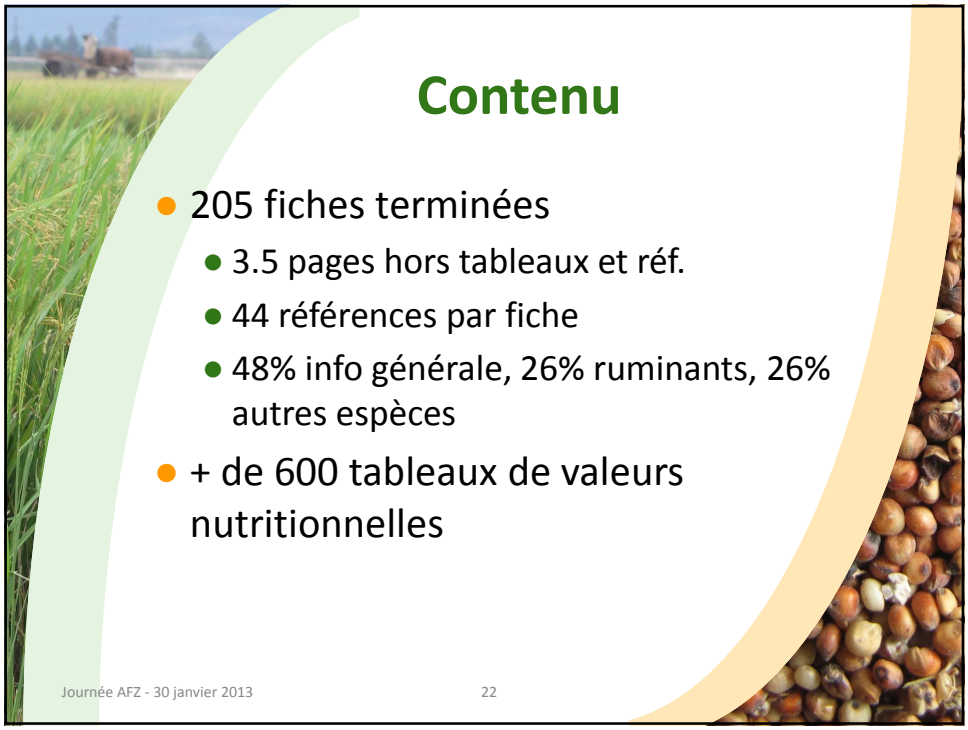
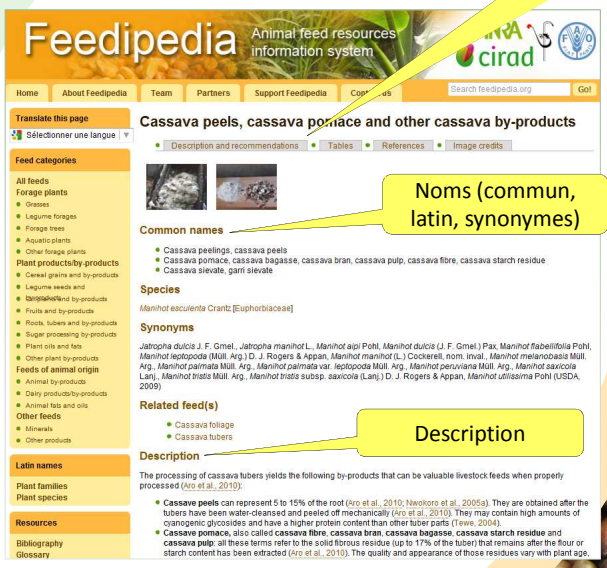

Contenu
205 fiches terminées
3.5 pages hors tableaux et réf.
44 références par fiche
48% info générale, 26% ruminants, 26% autres espèces
+ de 600 tableaux de valeurs nutritionnelles
Journée AFZ - 30 janvier 2013
22

Fiches

4 onglets/fiche

Noms (commun, latin, synonymes)

Description

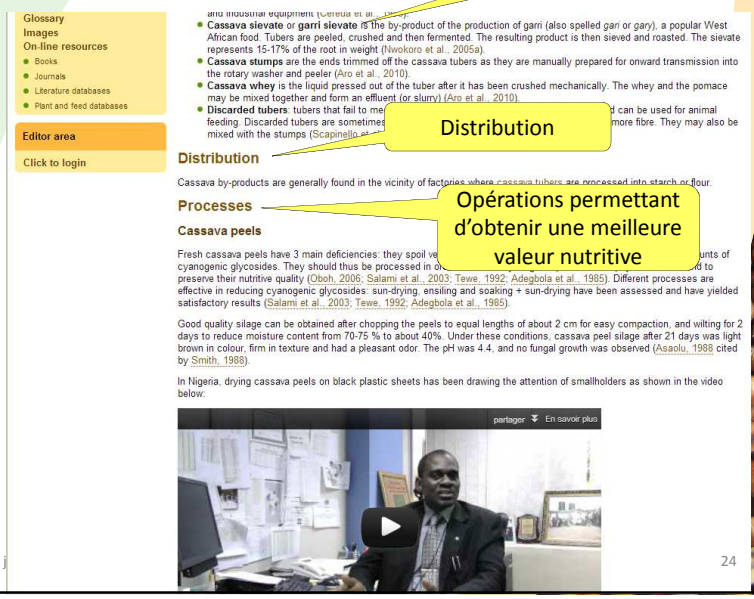


Fiches

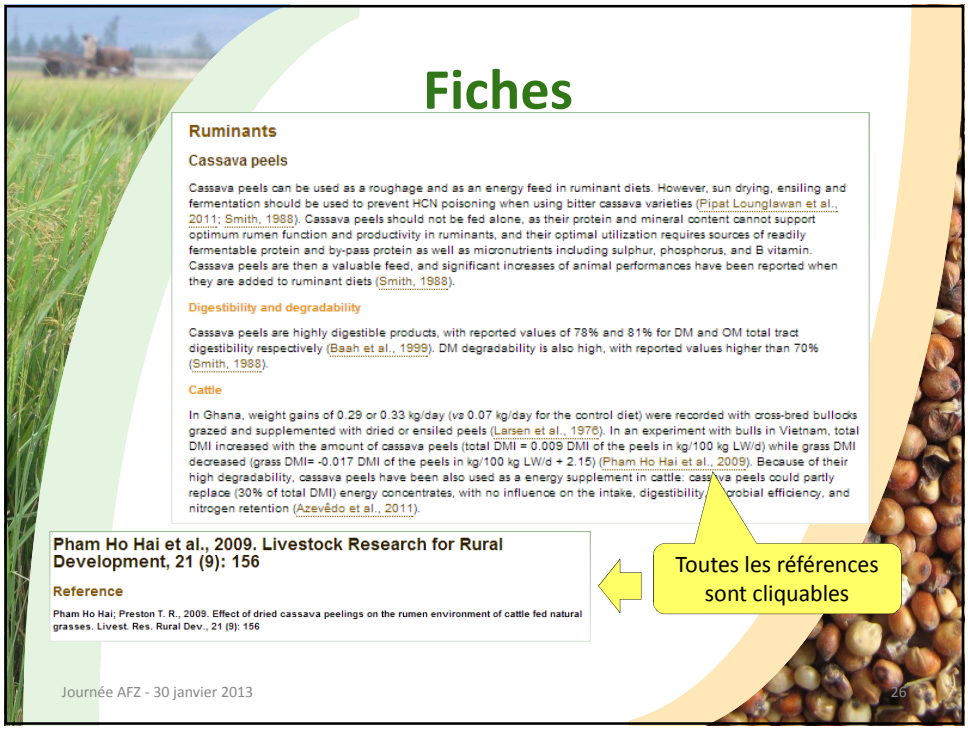
Chaque produit est décrit

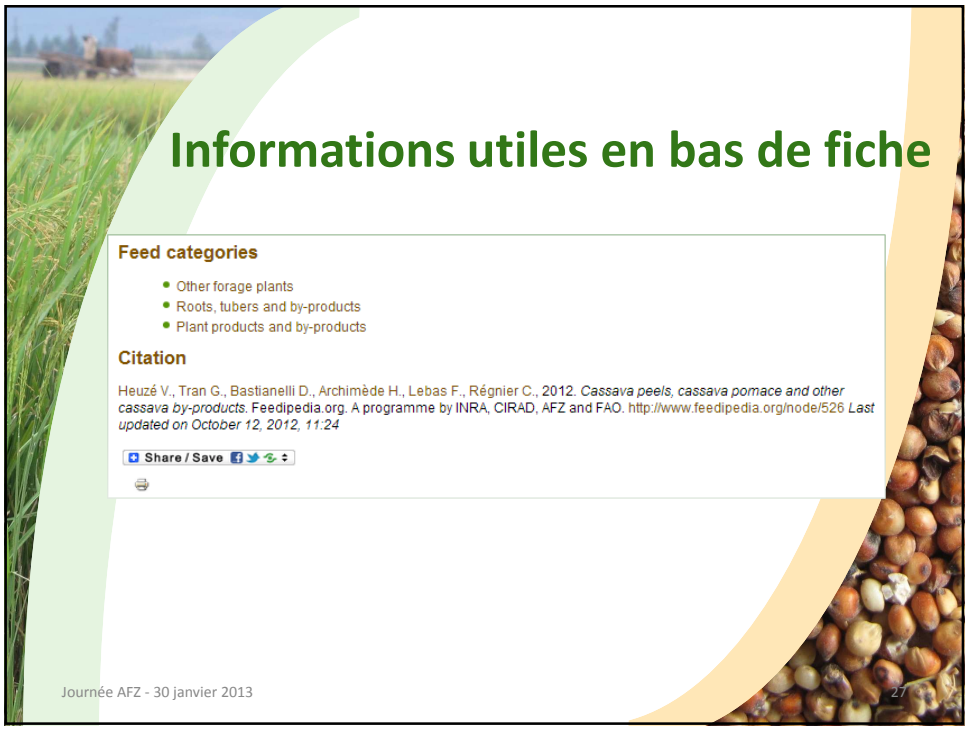
Distribution

Opérations permettant d'obtenir une meilleure valeur nutritive




Fiches
Gestion fourragère et pratiques d'affouragement
Forage management
Buffel grass needs time to establish and it should not be grazed before
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 vegeta
the plant recovers and young leaves with higher nutritive value appear (FAO,
Impact environnemental
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 succesfully 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 agressive grass due to its root system and allelopathic toxicity towards other seeds. It spreads readily and may
Journée AFZ - 30 janvier 2013
25


Fiches
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
Toutes les références sont cliquables
Journée AFZ - 30 janvier 2013
26


Informations utiles en bas de fiche
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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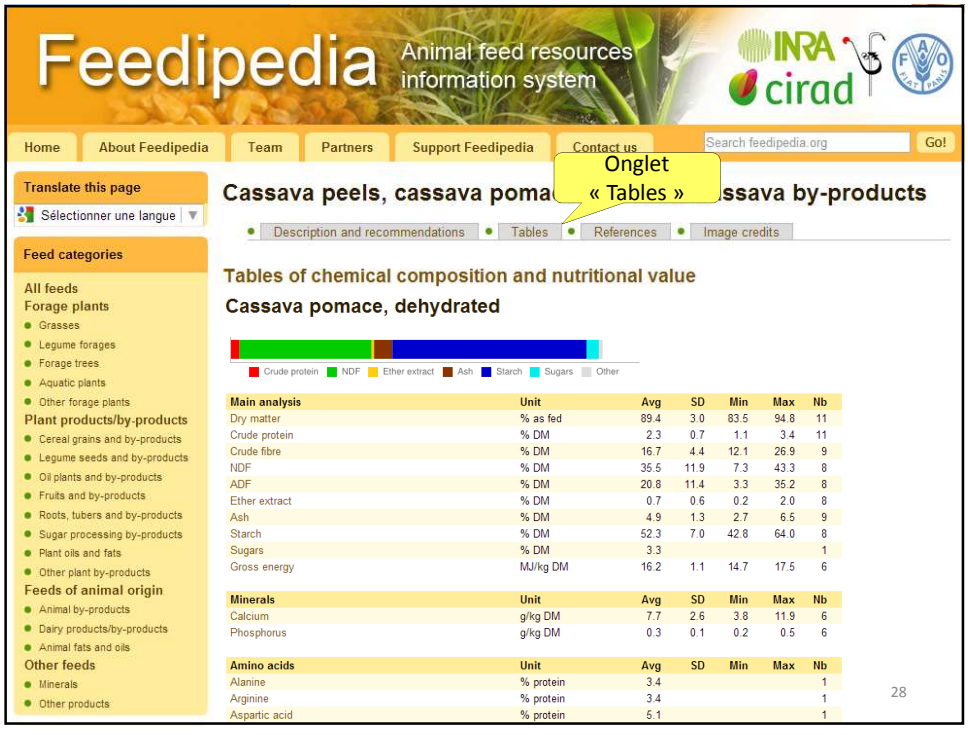
Journée AFZ - 30 janvier 2013
27


Feedipedia
Animal feed resources information system
INRA cirad
Home
About Feedipedia
Team
Partners
Support Feedipedia
Contact us
Search feedipedia.org
Go!
Translate this page
Sélectionner une langue
Feed categories
All feeds
Forage plants
Grasses
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
Onglet « Tables »
Cassava peels, cassava poma ssava by-products
Description and recommendations
Tables
References
Image credits
Tables of chemical composition and nutritional value
Cassava pomace, dehydrated
Crude protein
NDF
Ether extract
Ash
Starch
Sugars
Other
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
28


Feedipedia
Animal feed resources information system
INRA cirad
Home
About Feedipedia
Team
Partners
Support Feedipedia
Search feedipedia.org
Go!
Translate this page
Sélectionner une langue
Feed categories
All feeds
Forage plants
Grasses
Legume forages
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Aquatic plants
Oil plants and by-products
Fruits and by-products
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Description and recommendations
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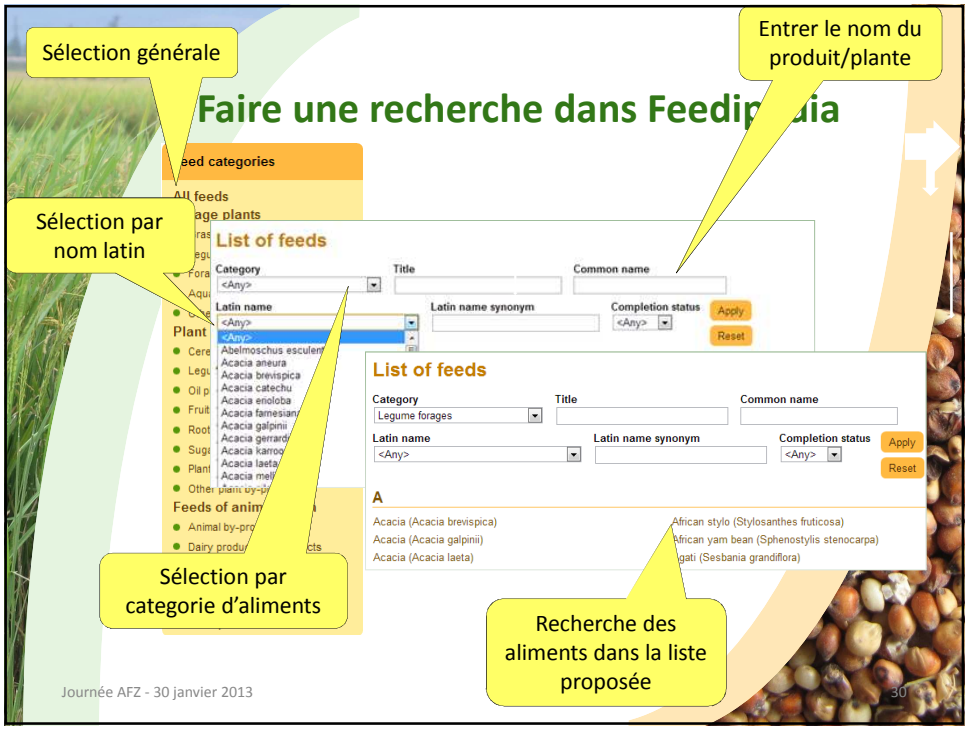
References
Image credits
References
Onglet « références »
Accès à la référence complète en cliquant
Lien vers le document
29

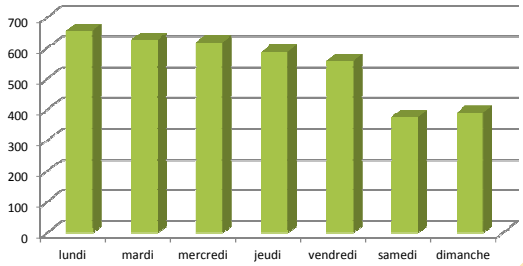

Sélection générale
Entrer le nom du produit/plante
Faire une recherche dans Feedipedia
Sélection par nom latin
List of feeds
Category
Title
Common name
Latin name
Latin name synonym
Completion status
Apply
Reset
Sélection par categorie d'aliments
Recherche des aliments dans la liste proposée
Journée AFZ - 30 janvier 2013
30

Liens vers des ressources en ligne

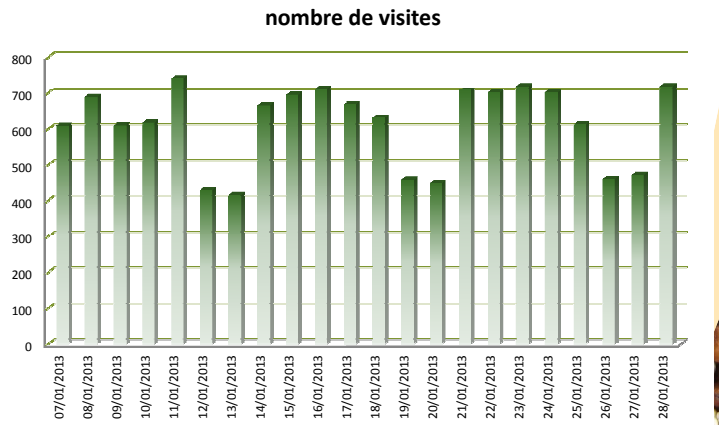
Fréquentation du site

- En moyenne : 558 visites/j
- 1168 visites le 27 novembre

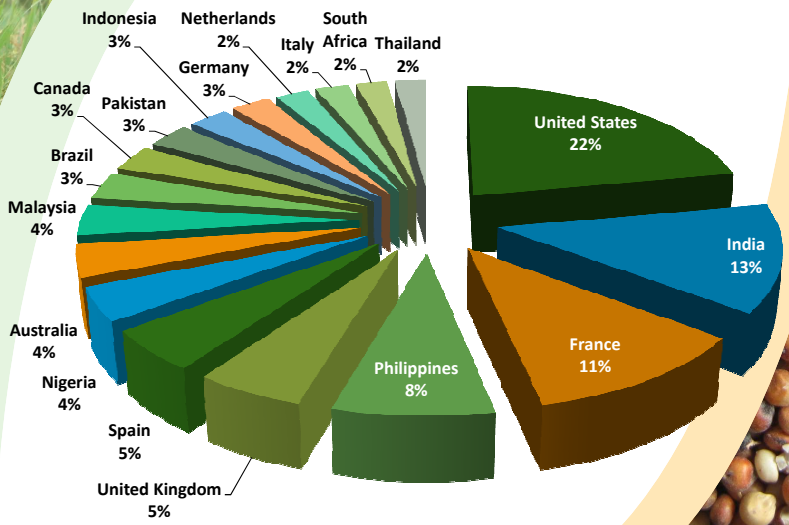
Nombre de visites / jour de la semaine (moyennes sur 74 jours)



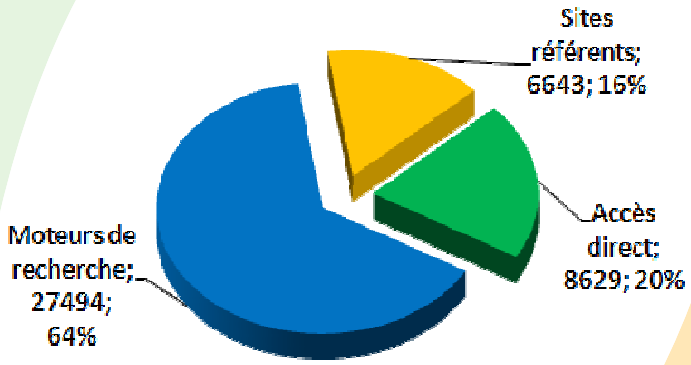
Semaine dernière



Origine des visiteurs: top 20



Modes d'accès à Feedipedia



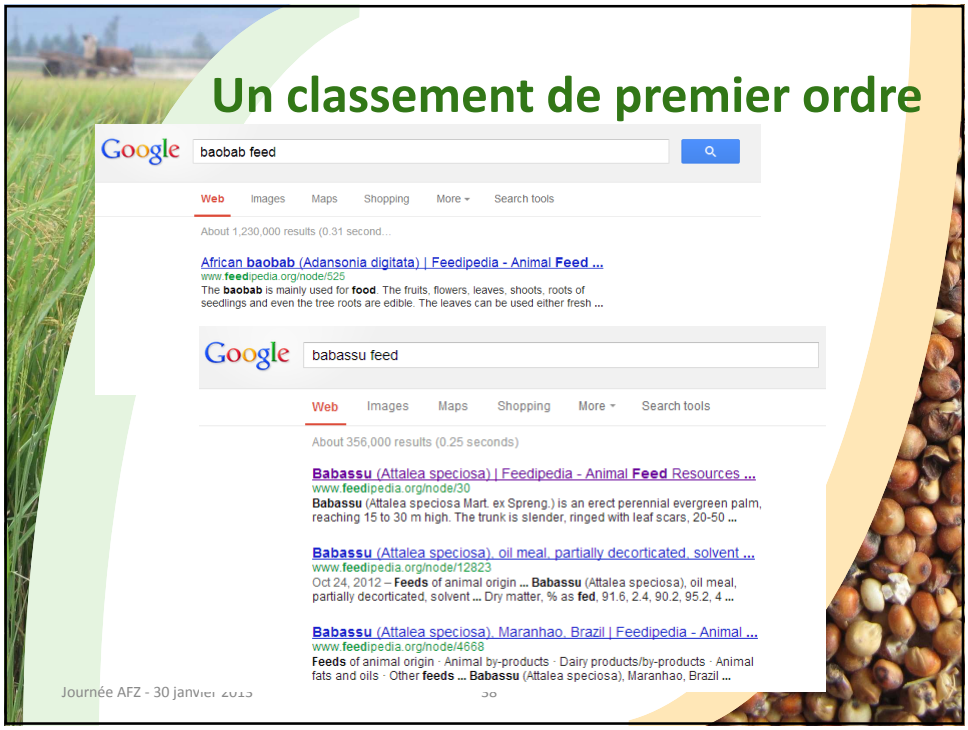
Quelques exemples de requêtes

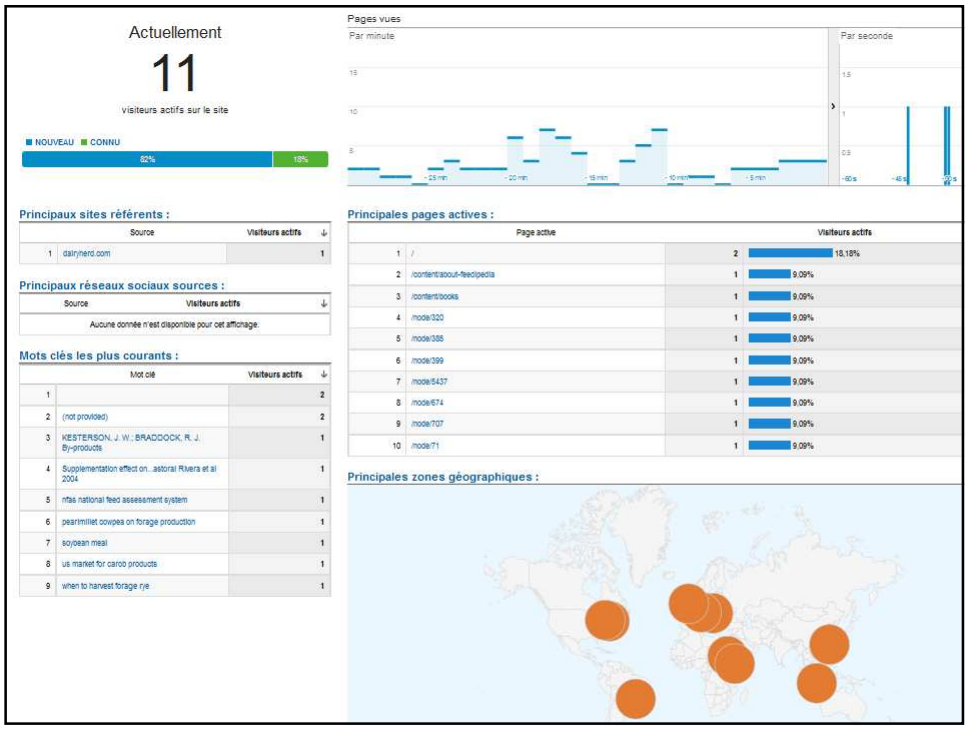
- www.google.com/search?q=**content+of+banana+trunk**
- www.google.com/search?q=**cassava+tubers+as+swine+feed**
- www.google.co.in/search?q=**Benefits+of+supplementation+of+silkworm+pupae+meal**
- www.google.co.in/search?q=**chemical+composition+of+shorea+robusta+leaves**
- www.google.co.bw/search?q=**use+of+sunflower+seed+cake+in+creep+diet**
- www.google.es/search?q=**chicken+feed+sweet+potato+meal**
- 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**

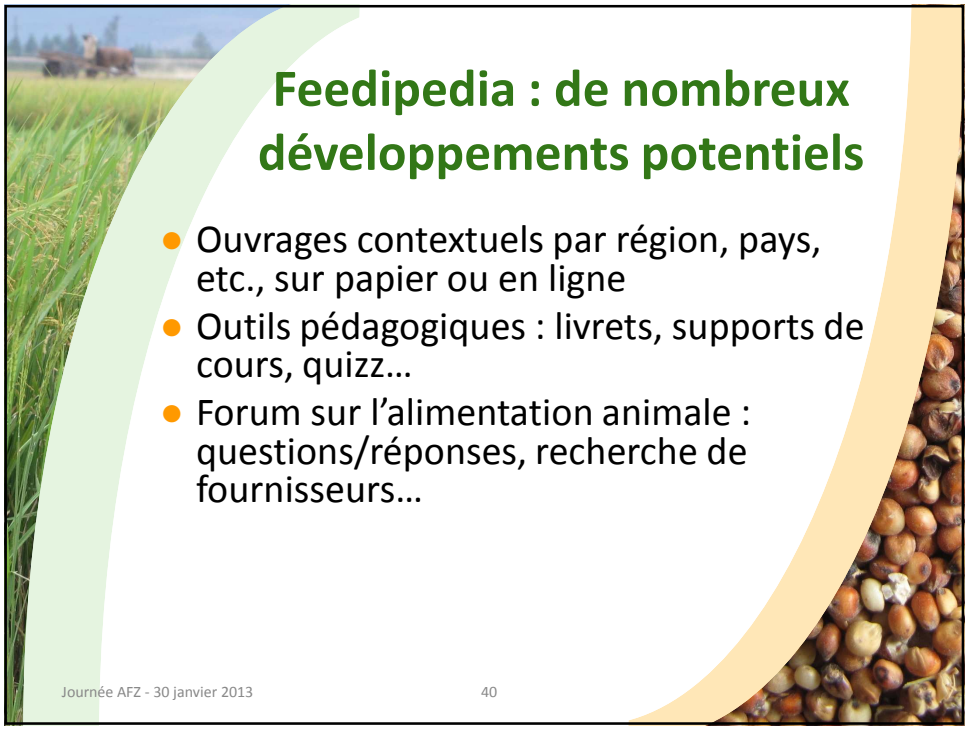
Fiches les plus lues

Titre de la fiche	Total	Australasie	Amérique du Nord (USA, Canada)	Amérique Latine	Europe	Afrique	Asie	Ind.
Copra meal and coconut by-products	937	88	89		75		634	51
Alfalfa (Medicago sativa)	765		194	42	275		220	34
Soybean meal	728		128	41	285	41	178	55
Maize grain	726		98	151	284		146	47
Wheat bran	685		138		186	38	227	96
Blood meal	605		164		94	119	109	119
Rice bran and other rice by-products	524		115		60	0	295	54
Barley grain	523		87		405	0	31	
Palm kernel meal	497	49	55		85	76	137	95
Mango (Mangifera indica) fruit and by-products	495		67			106	254	68
Cassava peels, cassava pomace and other cassava by-products	486		53			153	143	137

Un classement de premier ordre




Actuellement
11
visiteurs actifs sur le site
NOUVEAU CONNU
82%
18%
Pages vues
Par minute
Par seconde
Principaux sites référents :
Source
Visiteurs actifs
1 dairynerd.com 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 2
2 (not provided) 2
3 KESTERSON, J. W.; BRADDOCK, R. J. By-products 1
4 Supplementation effect on...astoral Rivera et al 2004 1
5 nfas national feed assessment system 1
6 pearlmillet cowpea on forage production 1
7 soybean meal 1
8 us market for carob products 1
9 when to harvest forage rye 1
Principales pages actives :
Page active
Visiteurs actifs
1 / 2 18,18%
2 /content/about-feedipedia 1 9,09%
3 /content/books 1 9,09%
4 /node/320 1 9,09%
5 /node/385 1 9,09%
6 /node/399 1 9,09%
7 /node/5437 1 9,09%
8 /node/674 1 9,09%
9 /node/707 1 9,09%
10 /node/71 1 9,09%
Principales zones géographiques :


Feedipedia : de nombreux développements potentiels
Ouvrages contextuels par région, pays, etc., sur papier ou en ligne
Outils pédagogiques : livrets, supports de cours, quizz…
Forum sur l'alimentation animale : questions/réponses, recherche de fournisseurs…
Journée AFZ - 30 janvier 2013
40

Conclusion

- Un programme unique
- Des débuts prometteurs
- Une vitrine de l'expertise française
- De très nombreuses potentialités à exploiter
- Un modèle économique à trouver

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