EMPOWERMENT OF LOCAL FEEDS TO SUPPORT FEED SECURITY

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# TABEL OF CONTENTS

## KEYNOTE PAPERS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy for the development of feed. The Director of Non Ruminant Management, Department of Agriculture of Republic of Indonesia</td>
<td>1</td>
</tr>
<tr>
<td>Improving feedstuff supply and quantity with an emphasis on plant and animal breeding multiculture and agroforestry. E.R. Orskov, P.J. Goddard, Kustantinah</td>
<td>5</td>
</tr>
<tr>
<td>Strategies to meet feed requirement of smallholder beef cattle toward the acceleration of beef self sufficiency program. Marsetyo, Damny, Dahlanuddin, Dicky Pamungkas, Esnawan Budisantoso, Takdir Sailli</td>
<td>14</td>
</tr>
<tr>
<td>Poultry production and the potency of local raw materials usage in Indonesia. Desianto</td>
<td>27</td>
</tr>
</tbody>
</table>

## FEEDSTUFF PAPERS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The study of use binders on complete feed block processing on physical and chemical quality. Emmy Susanti, Titin Widiyastuti and Munasik</td>
<td>37</td>
</tr>
<tr>
<td>Fishmeal quality improvement through antithistamine producer bacteria fermentation. Ning Iriyanti, Budi Rustomo, Effa Aris R</td>
<td>40</td>
</tr>
<tr>
<td>Amino acid indexes of earthworm and earthworm meal ( (Lumbricus rubellus) ) for animal feedstuff. Ahmad Sofyan, Lusty Istiqomah, Ema Damayanti and Hardi Julendra</td>
<td>44</td>
</tr>
<tr>
<td>The effect of transfer of capsulated omega-3 and l-carnitine suplementation on fatty acid concentration of fresh and grilled goat meat. Sudibya, Titin Widiyastuti and R.S. Santoso</td>
<td>49</td>
</tr>
<tr>
<td>Improving the in vitro nutrient digestibility of ration based on local waste fermented by rumen liquor and enzyme complex. I Made Mudita, Anak Agung Putu Putra Wirawa, I Wayan Wirawan and Ni Wayan Siti</td>
<td>54</td>
</tr>
<tr>
<td>The evaluation of nutrient quality of ramie leaf silage and hay in complete mixed ration for etawah-crossbreed goat using in vitro technique. Hutabarat, I.M.L., Mutia, R., Permana, I.G. and Despal</td>
<td>55</td>
</tr>
<tr>
<td>Study of feedstuffs storage durability using carbondioxide gas. Tri Rahardjo Sutardi</td>
<td>56</td>
</tr>
<tr>
<td>The utilization of microorganism cultures as starter in ensilage process to increase organoleptic value and chemical composition of sedge grass ( (Imperata cylindrica) ) silage. Ni Gusti Ketut Roni and I Made Mudita</td>
<td>64</td>
</tr>
<tr>
<td>Technical effect and drying time on the quality of ramie ( (Boehmeria Nivea, L. Gaud) ) leaf hay. N.D. Asti, L.G.Permana, Suryahadi and Despal</td>
<td>68</td>
</tr>
<tr>
<td>Acid value and amount of microbial of feedstuffs suplemented by antimicrobial agent pseudomonas fluorescens strain fnce-070 during storage. Titin Widiyastuti, Nina Hastiani, Sudibya</td>
<td>73</td>
</tr>
<tr>
<td>Performances of lactating dairy cows fed macerated alfalfa forage as part of complete feed. Suwarno</td>
<td>77</td>
</tr>
<tr>
<td>Performances of king grass ( (Pennisetum purpurea) ) at fourth defoliation under the influence of urea and manure fertilizers. Eko Hendarto and Suwarno</td>
<td>84</td>
</tr>
<tr>
<td>Fermentation technology on high fiber feedstuffs with ( Aspergillus niger ) and lab-cellulolitic mixed ( (c-lab-m) ) as ducks rations. Ali Agus, Ema Winarti, Ade Wicaksono and Rosita</td>
<td>88</td>
</tr>
<tr>
<td>Frequency of application organic fluid fertilizer on yield, and nutrition concentration of elephant grass of Thailand variety. Nur Hidayat and Bahrun</td>
<td>92</td>
</tr>
<tr>
<td>Fermentation of bagasse with ( Trichoderma viridae ) and ( Saccharomyces cereviceae ); its effect on crude fiber and crude protein degradation as in sacco. Nur Hidayat, dan Caribu Hadi Prayitno</td>
<td>97</td>
</tr>
</tbody>
</table>
Cocoa husk fermentation in diet evaluated from organoleptic characteristics of broiler meat. Sri Subarmiyati .......................................................... 297
Income over feed cost of broiler chicken of difference scale rearing. Rosidi .......................................................... 301
Chlortetracycline additive has no effect on serum transaminase of broilers fed local diet. Retno Murwani, Astri Konstantina Ariesta and Redha Yushita .......................................................... 304

GENETICS AND REPRODUCTION PAPERS
Genetics inheritance of production characteristic based on blood protein pattern in Magelang duck. Dattadewi Purwanti .......................................................... 305
The effect of using steroid hormone precursor on the reproductive quality of male quail. Abyadul Fitriyah, Wihandoyo, Supadmo and Ismaya .......................................................... 310
The effect of non genetic factors on milk production at dairy cattle breeding centre of Baturraden. Setya Agus Santos .......................................................... 318
Accuracy of estimation of milk production with test interval method and centering date method to real milk production in dairy cattle selection. A.T. Ari Sadewo and Setya Agus Santos .......................................................... 324
The effect of breed and concentrate levels on sperm quality of rams. Dadang Mulyadi Saleh .......................................................... 330
Effect of various levels of egg yolk on semen quality and fertility of native chicken spermatozoa. Sugiyatno, and Dadang Mulyadi Saleh .......................................................... 335
Application of technology to improve of ewes reproduction and lamb production performance in fat tail sheep. Mas Yedi Sumaryadi, Agus Priyono, Budi Haryanto, and Herry Soeprapto .......................................................... 339

PRODUCTION, POST-HARVEST AND SOCIO-ECONOMICS PAPERS
Technical efficiency ratio (TER) of dairy farming in Banyumas regency. Rahayu Widiyanti and Sri Mastuti .......................................................... 346
Daily weight gain performance and carcass quality of Indonesian indigenous sheep fed supplements containing treated cassava peel. R. Singgih Sugeng Santos .......................................................... 350
The erythrocyte and packed cell volume (PCV) of broiler chicken which is reared on different litters. S.J.A. Setyawati .......................................................... 354
Isolation and identification of antihistamine “histamine methyl transferase” producer rumen bacteria. Ning Iriyanti, Budi Rustomo and Elka Aris R .......................................................... 358
The influence of farmer’s characteristic to increase knowledge and interest goat farmer through comic about marginal area for cultivated forage plant. Krismiwati Musatip .......................................................... 363
Applied of analytical hierarchy process for development strategy analysis of small-scale poultry feed industry in Sidemen-Rappang regency, South Sulawesi. Jasmal A Syamsu and Irasyam Syamsuddin .......................................................... 366
Prospectus analysis of halal gelatin agro-industrial from split hides at leather tanning factory in Indonesia. Syarifuddin Nur and Suhartito .......................................................... 373
Effects of dipping time in organic acids on total viable count and quality of broiler carcasses. Agustinus Hantoro Djojo Rahardjo and Juni Sumarmono .......................................................... 379
Changes in internal quality parameters of edible-coated shelleggs during storage. Juni Sumarmono and Bambang Sedar Santoso .......................................................... 385
The effect of additives and time of ensilage on characteristics and quality of ramie (Boehmeria nivea, L. Gaud) leave silages. Safarani, S.N., Jayadi, S., Permana, I.G. and Despal .......................................................... 393
The correlation between floor space and sanitation of cage with mastitis disease occurrence on the dairy cattle. Sri Hastuti .......................................................... 398
Empowerment of dairy cow livestock in enhancing well being of rural community in Kecamatan Baturraden. Tri Sugiaarto .......................................................... 403

Find out the most critical capital investment required at an integrated beef cattle farming in Purbalingga. Nunung Noor Hidayat and Sri Mastuti ............................................................... 409
Assessment of group dynamic and individual potencies of Batur sheep farmer to improve their productivity in Kabupaten Banjarnegara. Novie Andri Setianto ................................................................. 415
The effectiveness of Morinda citrifolia, Curcuma xanthoriza and Curcuma domestica extract for immunostimulatory titer antibody Newcastle Disease and avian influenza on broiler. Sufiriyanto, M. Indrajit and Supriyanto .......................................................... 420
Farmers perception on the artificial insemination (AI) program in Banyumas. Moch. Sugarto and Krisniati Muatip ........................................... 426
Immunity response of double dose ND-vaccinated parent pelung day old chicken. Dwi Prabowo 432
Contributions of husbandry sector to regional domestic income Cilacap region. Pramono Hariadi 435
APPLIED OF ANALYTICAL HIERARCHY PROCESS FOR DEVELOPMENT
STRATEGY ANALYSIS OF SMALL-SCALE POULTRY FEED INDUSTRY
IN SIDENRENG RAPPANG REGENCY, SOUTH SULAWESI

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ABSTRACT
This study aims to formulate an alternative strategy for the development of small scale poultry feed industry in Sidenreng Rappang Regency, South Sulawesi. Research conducted with the method of Analytical Hierarchy Process (AHP). Information for preparing the structure hierarchy obtained through literature studies and interviews to the respondents using questioner. Respondents consisted of government, researchers, finance institution, and farmers. Data analysis software using the assistance of Criterion Decision Plus 3.0. Results of research indicate that the most important factors to be considered in the development of small scale poultry feed industry in the Sidenreng Rappang is the availability of raw materials in the quality and quantity throughout the year with a weight of 0.305. Actors who play a role based on the weighted importance of succession, namely industry (0.421), farmers (0.256), government (0.182), the institution of finance (0.087), and researchers (0.054). The main purpose of the industrial development of small-scale poultry feed is to increase income and farmer. Strategy-based raw materials is a first priority or the most effective strategy among alternative strategies with weight 0.333, followed by a strategy based on the second priority of capital with the weight of 0.244.

Key word: Small scale poultry feed industry, development strategy, and analytical hierarchy process

INTRODUCTION
The population growth of poultry has positive effect of the feed industry, especially chicken industry. The market share of chicken feed is the largest, compared with fish and shrimp feed. Infovet (2008) showed 83% of livestock needed to feed poultry, the remaining was 6% for pig feed, 3% dairy feed, 7% aquaculture feed, and 1% other animal feed. Synergy between the feed industry and animal industry, especially chickens because the output from the feed industry is the input for the livestock business.

South Sulawesi is one of the centers of poultry development in Indonesia, and Sidenreng Rappang (Sidrap) regency as the largest population of layer chickens. Based on statistical data from 2007, the population of layer chickens 2,753,418, or more than half (57.68%) of the total population of layer chickens in South Sulawesi are concentrated in Sidrap. This shows that of layer chicken farm is a business that became a source of income for farmers. On the other hand, with the high number of layer chicken population means that cattle have a match with the condition and level of interest and ability in managing farming business.

Factors that play an important role in business are the availability of animal feed resources, because 70% of the cost of production is feed. In the providing of feed, farmers are more dependent on the supply of feed from the large feed factory. The conditions cause the farmers in the low bargaining position against on large feed manufacturers. Thus, some farmers who have a high population approximately 5000 chicken build small-scale feed industry (mini feed mill) for making of their own feed. It is supported by the availability of feed raw materials such as rice bran and corn that has highest production, because Sidrap is development centre of food crops in South Sulawesi, especially rice and maize.
Small-scale feed industry lack of competitiveness compared with the large feed industry. Ability of low competitiveness due to small industries, among others, because a). Management, technology and equipment are simple to use, b). Access to market information is still limited, c). Investment modal and working capital are limited, d). The human resources capability is low, and e). Product quality and variety have no standardization (Sandra, 2002). In addition, some of industrial raw materials are not available locally. Development of small-scale industrial should be developed to be independent industry which has high competitiveness. Poultry feed industry is based on local resource and it is alternative solutions that can be done. Utilizing of agricultural products as raw materials to get value added. Small industry and others in managing the business need to implement a strategy to live (cash flow) and growth (liquidity) (Ridwan, 2003).

First problem which we get in small-scale feed industry is limited of raw material available, feed quality is not standard, fluctuation prize, and difficult to compete with other one. Development of small-scale feed industry can support the development of poultry, especially in the Sidrap. Thus, strategy is needed to formulate a development of poultry feed industry by attention to local potential.

This study aims to formulate an alternative strategy for the development of feed industry in the small-scale poultry Sidrap regency. Research results are expected as useful inputs to all the stakeholders in the poultry and to plan and set the development strategy of poultry feed industry effectively. It also may be additional information in the studies that are relevant in the future.

MATERIALS AND METHODS

This research was conducted for three months in Sidrap Regency, South Sulawesi. The data were collected and consisted of primary and secondary data. Primary data obtained through interviews with experts, according to the list of questioner. Secondary data obtained from the Statistics Agency report, Animal Husbandry Office, and agencies associated with this activity. Other supporting data as a report of the study or studies from a variety of sources other libraries.

Analysis was conducted to formulate a development strategy small-scale poultry feed industry to use analytical Hierarchy Process (Saaty, 1993). The step of this study was to list the problem solve (decomposition), comparative judgment, involved criteria grading and alternative through pair wise comparison then found its vector priority (Eigen vector), to measure the logical consistency and decide the decision based on grading when synthesis of priority was being done.

RESULTS AND DISCUSSION

a. Factors affecting the development of small-scale poultry feed industry.

Factors that affect the industry in the development of small-scale poultry feed in the Regency Sidrap are as follows:

1. Raw materials. In feed industry, the important factor is the availability of raw materials throughout the year both the quantity and quality. Local raw materials such as corn and bran are available. Sidrap is one of the central areas of food crops, especially rice and maize. Maize production in 2008 was 41,846.99 tons. However, the higher requirement of raw materials sometimes is not equal with crop production, so it must be brought from outside the region. Meanwhile, fish meal and other substitution raw material are got from outside the region. In terms of quality, the main raw material and substitution raw material are low quality so that the quality of feed are produced under the standard.

2. Human resources. In general, the quality of human resources involved in the agro industry is low. They are weak in a wide range of factors including the weak against the management, production, technology, and
marketing (Sandra, 2002). However, over the development, the qualities of human resources are quite increased. At least, they are from the education level and most of them are employers / farmers who is a high school graduate / equivalent (62.96%), even some of them had higher education (14.81%) (Indah, 2006). However, their skill is got from generation to generation. They do not follow the development of the poultry world because of limited information.

3. Capital investment. Capital that is used is very small, so it is difficult to develop business. Business is usually begun using their own capital or loan. They seldom used bank loans because of procedural administration. Investment of equipments is also limited, if it was difficult to meet increased demand.

4. Poultry population. Total poultry population in Sidrap Regency at 2008 was 7,173,489 head, with the distribution layer chicken was 3,089,356, broiler chickens were 1,722,405, free-range chicken were 2,084,887, and ducks were 276,841 head (Animal Husbandry Office, 2008). The large population of poultry will impulse in high demand so that local marketing potential of feed will also be large.

5. Government policies and regulations. Regional autonomy provides opportunities for local governments to develop the area according to its potential. Decentralization requires the involvement of pro-active government. That role can be realized in terms of providing facilities, license, tax, the governing trade, creating conducive business climate, and other policies aligned to the industry and the small breeder.

6. Socio-economic environment. Socio-cultural conditions of Sidrap community supports in the development of agro-industry. When people engaged in agriculture / livestock are no longer regarded as second profession. Many of the people who hang up their life of poultry farm. Animal husbandry is being primary work and not second side. Communities are open and not feel disturbed by the presence in the industry around them.

By the presence poultry feed industry would bring benefits and opportunities with the advantage of employment opportunities for the public and local agricultural products can be saved.

7. Equipment and production management. Equipment is used in the production process of small scale industrial of poultry feed in Sidrap Regency is very simple. Only a machine grinder with a low production capacity was built by their elves, and for mixing feed materials used spade. Then feed were packed using the usual bag without a label.

8. Competitors. Feed poultry products from the factory appear with great quality and quality guaranteed. In addition to the superior quality, large factory also superior ability in marketing (promotion). In addition, the products available on an ongoing basis so that the farmers who use them do not have kehawatirban. In terms of product price feed most of the industries are more expensive than if the local feed.

After the comparison of the level of interest of each factor in influencing the development of industrial small-scale poultry feed, is the priority and weight of each factor. The results of the analysis indicate that the raw material into the main factors to consider in the planning and implementation of development strategies poultry feed industry with a small-scale weight 0.316. This is in accordance to the Rashid (2001) that important thing must be established in the feed industry is the availability of raw materials throughout the year, so that it does not happen while the break of operations by industry because of unavailable raw materials. Factor occupies the second priority is poultry population with weight 0.249. The poultry population will lead to higher demand for food is also high so that the marketing potential of the feed industry is also wide open.

Three factors influence the development strategies of poultry small-scale feed industry is capital and investment with the weight of 0.150. Fourth priority is the government policy and regulations. According
to Sandra (2002), during this government political will is still very poor, so that attention government is expected to the breeder in the future. Factor that occupies the fifth priority is the quality of human resources, followed by food industry competitors from the market of similar products. Then the equipment and production management and the last factor is the socio-economic environment with the weight of 0.026.

b. Actors involved in the development of industrial small-scale poultry feed.

Actors involved in the development of feed industry in the small-scale poultry Sidrap Regency is a). Farmers, in this case is a consumer product that utilizes a feed from the small scale feed industry of poultry, b). Employers Industry, the industry is that manufacturers have a role in the industry to the marketing of products, c). Government, the role of the government related to the provision of facilities, licensing, taxes, the trade system, creating conducive business climate, and other policies, d). Capital Institute, the institution of capital as a provider of business credit for the development of industrial small-scale poultry feed, and e). Researchers, researchers have a role in the transformation of the latest research in the field of feed technology, technoeconomic analysis, testing the quality of feed.

Actors who play a role in the development of feed industry in the small-scale poultry Sidrap Regency is the industry, breeders, government, institutional capital, and researchers. Actors involved in the planning and implementation of this strategy is the industry itself, with the weight of 0.434. Industry has given the central role from the start of the process industry, the production, marketing, provision of capital and determining the policies and decisions related to the development industry. Actor who occupies the second priority is a breeder with the weight of 0.273. Farmers in this case is a consumer product using the feed industry from the small-scale poultry feed. Trends breeder feed using the feed from the poultry industry because it costs a small scale that is much cheaper even if the quality is lower.

The government was placed third with a priority weight 0.155. Smaller scale of production the bigger the role of government (Soekartawi, 2005). Next stage is whether the institution of capital banks and non-bank with the weight of 0.095. The importance of the involvement of the institution of capital according to Sandra (2002), given the weak capital industry is still small so that the credit provider is required in order to business development. Although in the last priority, but the feed industry in the development of small scale of poultry feed industry, researchers have a role to transform the latest research in the field of feed technology to be adopted and applied to the small-scale poultry feed industry. In addition, researchers also are expected to conduct economic analysis and test the quality of the feed outstanding.

c. Goals to be achieved in the development of small-scale poultry feed industry.

The goals of development of the small-scale feed industry are a). Reduce dependence on large feed industry, whereas the dependence on the feed industry can be large if the feed industry has been able to meet the small demand for breeder feed. b). Increase the productivity and effectiveness through the production achieved with the improved quality of human resources and modernization of production tools. c). Improve the competitiveness of products, which increased over the rising quality of feed. d). Business continuity / production is achieved if the raw materials industry is available throughout the year. e). Meet the needs of local poultry feed through increased production volume of poultry feed so that local needs can be met, and f). Increasing of the income/farmers can be achieved through increased production and sales, which in turn will increase the income.

Based on the combined assessment of the respondents, the results obtained that the increase in income and a breeder's first goal of the planning strategy development scale
poultry feed industry with a small weight 0.371. This is in accordance Depperindag (2002) which states that the main goal of the development of secondary industry is the increased chance attempt, job opportunities, and community income more evenly. Second priority is the sustainability of business, followed by increasing product competitiveness with their respective weights 0.236 and 0.155.

Increase the productivity and effectiveness of production are placed fourth with a priority weight 0.112. Further development of poultry feed industry is small scale to meet the needs of local poultry feed. By meeting the needs of poultry feed from the local small scale feed industry, the farmer no longer depends on the supply of feed from the large-scale feed industry.

d. Industrial development strategy poultry feed a small scale.

Alternative development strategies in the development of feed industry in the small-scale poultry in Sidrap Regency are as follows:

a) Providing of raw materials locally throughout the year such as corn and rice bran through the expansion area to accommodate the planting and production of food crops for local needs of industry.
b) Provision of local fish meal, which is shipped from other areas through the concept "mina padi". Where fish cultivated in rice field and harvested early and it used as raw materials for industry, not for human consumption.
c) The utilization of unconventional raw materials is more available locally.
d) Improve the quality control of animal feed.

a) Combination product between the large feed industry product and available raw materials. It can be expected to push the cost of production without decreasing the quality.
b) Blue ocean strategy, namely the competition of industrial products with the aim of the new market space through value innovation in the product (Kim and Mauborgne, 2006). One of them is to make the formulation of feed to produce eggs which contain omega 3.
c) Making innovation a new form of feed, where this form of mash or crumble into pellet.
d) Producing feed for broiler, free-range chicken and duck, because most of the local feeds were consumed layer chicken.

a) Marketing systems that encompass full market first produce new products (Rasjid, 2001). With the volume of business in compliance with the request consumer (demand).
b) Establish a mutually beneficial partnership between industry and breeder.
c) Extending the market segment that is limited to chicken race with a layer of marketing products to feed broiler, free-range chicken and duck.

Dissemination expertise and technology through training feed processing feed processing using local raw materials (Animal Husbandry and Fisheries, 2006) and small-scale production.
a) Research institutions and industry to support the feeding of the product quality, work ethics, and managerial.
b) Development of an integrated pattern of counseling and technical assistance on a continual basis and delivery information on the development of the technology world, especially poultry feed.

5. Capital-based strategy.
a) Broadband access to information feed capital for small scale industries through bank and non bank with regional initiatives in the credit guarantee.
b) Providing of energy for industry in dealing with the institutions to optimize their working capital with a scout from the farm.
c) The establishment of industry associations to facilitate distribution food.

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CONCLUSIONS

Based on the results of research and discussion that has been to formulate an alternative development strategy poultry feed industry in the small-scale regency Sidrap, and then some conclusions can be drawn as follows:

a) Most important factors to be considered is the availability of raw materials with a weight of 0.316.

b) Actors who play a role based on the weighted importance of succession, namely industry (0.434), farmers (0.273), government (0.155), the institution of capital (0.095), and researchers (0.044).

c) The main purpose of the industrial development of small-scale poultry feed is to increase income and breeder.

d) Strategy-based raw materials is a first priority or the most effective strategy among alternative strategies with weight 0.377, followed by a strategy based on the priority of capital with the weight of 0.259 second.

a) Supporting equipment production (infrastructure, factories).

b) Modernization of production process through the procurement of machinery industry, modern small capacity.

Based on the results showed that the poultry feed industry development of small-scale-based raw materials occupy the first priority with the strategy component weight 0.377, strategy and priority-based strategy is the second capital with the weight 0.259. Strategy-based development of human resources (human resource development) placed fourth with a priority weight 0.097. Alternative strategy is based on product innovation with the weight 0.058. Employers should have small industry initiatives to make product innovations. By doing so will give the typical product of the resulting, so that gives the opportunity to have a superior position in the market. Component strategies that occupy the last priority are based strategy with the production equipment weight 0.040.
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