Measuring the Effect of Rural Housing Support on Agricultural Activity: A Panel-Data Analysis for Ain M'lila Province

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ABSTRACT

The goal of this study is to measure the effect of rural housing support policy on agricultural activity through a Dynamic Panel Data Model upon yearly data for the period 2004-2014. Results show that a co-integration relationship is detected between rural housing financial support amounts and agricultural activity in Ain M'lila province at the long run. The positive impact emphasizes the success of the rural housing support policy in Algeria.

Keywords: Agricultural activity, agricultural support, agricultural subsidies, panel-data, Algeria.

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1. INTRODUCTION

Over the years, rentier countries are making a great effort trying to diversify their economics, and perhaps the majority of them realize that it will only be achieved if they succeed in stimulating the agricultural sector. In the last two decades, Algeria has achieved a great fiscal surplus as a result of high oil prices, which reached a high level exceeded 150 US$, see figure 1 in appendixes. And it has focused to direct a part of these resources to revitalize the agricultural sector and increase its contribution to the GDP through a variety of support and funding policies. There are many studies that dealt with the Algerian agricultural financial and support policies such as the study of Zbiri (2014); Djermouli (2006); Ayache (2011); and Ammarie (2014).

In the last years, particularly between 2000 and 2014, Algeria gave a big intention to the agricultural sector, the government has allocated to the agricultural sector a total of 53.4 billion dinars (about 486 million US$) out of 525 billion dinars within the 2001-2004

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program, and 312 billion dinars out of 4202.7 billion dinars within 2005-2009 program, and 1000 billion dinars out of 21,214 billion dinars within the 2010-2014 program, without taking into account the other rural projects related to irrigation and water resources programs. This interest is reflected in the evolution of the agricultural production volume, For example, the volume of wheat production moved from 1470 thousand tons in 1999 to 2602 thousand tons in 2004 with the end of the 2001-2004 program, the wheat production volume has reached about 3678 thousand tons in 2014.[1]

This paper focuses on one of the financial support policies in the agricultural sector used by the Algerian government, which is the rural housing policy, by running a panel-data regression for Ain M'lila province over the period 2004-2014,[2] where Ain M'lila province envelope three areas which are Ouled-Gacem, Ain M'lila-centre and Ouled-Hmla. Ain M'lila province is a commercial and industrial pole, and the Author expects that the results of this policy will be clear as the difficulty of pressure on commercial and industrial investors to expand into the agricultural sector. Therefore, the significant positive results of the impact of the size of rural housing financial support provided on the development of agricultural production can be generalized to the rest of Algeria regions.

This study aim to answer the following question: *Is there a significant impact of the financial rural housing support policy on agricultural activity?*

The study starts from three hypotheses; first, financial rural housing support policy has a positive impact on agricultural activity. The second hypotheses is there is no difference between the the studied areas (Ouled-Gacem, Ain M'lila- centre and Ouled-Hmla) in terms of effect size of financial rural housing support policy on agricultural activity. Finally, the presence of a positive impact of financial rural housing support policy on agricultural activity in Ain M'lila province can be generalized to other regions in Algeria. As Ain M'lila province is an industrial and commercial area at the first degree, meaning that most investors are used to invest in industrial and commercial sectors and they have no interest in agricultural sector, so, the success of the financial rural housing support policy to push investors towards agricultural sector in Ain M'lila province can be generalized to the rest of Algeria agricultural regions, where the beneficiaries from this housing program are farmers.

The goal of this study is to measure the impact of financial rural housing support policy on agriculture production through an empirical analysis using a panel-data model (Dynamic OLS panel-data model) upon yearly data for the period 2004-2014.

The paper is organized as follows. In section 2 we present a Literature Review on the agricultural funding and support policies; Section 3 presents the panel-data Model & Methodology, followed by Section 4 for results and discussion, and finally, Section 5 presents the main conclusion.

2. LITERATURE REVIEW

Agriculture is fundamental to civilization, and it is a primary goal for any government to achieve sustainable development. Many studies highlight the relationship between agriculture and development, (Ghatak and Ingersent, 1984; Timmer, 1992; GARON YEH and LI, 1999; Helmsing, 2001; Godoy et al. 2010; Tonts and Siddique, 2011; Yusuf, 2014; Awokuse and Xie, 2015).

Economic theory and empirical studies strongly suggest that governments cannot directly and reliably command and control agricultural activity (McMahon and Cardwell, 2015). However, it remains an option; national governments can build and then defend

[1] For further details see OCDE statistics

[2] This period is depended on the rural housing program period, which launched in 2004 and stopped in 2014.

agricultural policies. Furthermore, there are many agricultural support policies that can be pursued by national governments. Many studies suggest that there is a significant impact of agricultural policies on lifting of the labor force, food security, reduce poverty and increase the national output.

Ramesh and Linu (2001) find that The World Trade Organization agricultural policies package on domestic support and export subsidies provides for complex classification of support and subsidies for agriculture, some of which are totally exempt from reduction commitments. This classification favors' developed countries, which are able to maintain a high level of support for agriculture. Developing countries should press for combining all forms of support for agriculture and seek reduction in total support in order to attain a level playing field.

Jacob (2003) evaluates many agricultural support policies in South Africa such as Land redistribution, Rural restitution, Joint ventures; it was found that there is a positive impact on agriculture activity and his report emphasised the importance of post-transfer support to land redistribution reform beneficiaries.

The study of Okolo (2004) analyzes the agricultural support policies in Nigeria, he finds that agriculture contribution to GDP is quite significant, and he suggests that the government should support the small farmers who dominate the agricultural sector by guaranteeing some micro credit assistance, extension service support and adequate training which are necessary for successful farm operation. Zbiri (2004) presents in his study the different mechanisms and policies of agricultural support in Algeria, he pointed out that the abolition of agricultural support in Algeria raised the agricultural production inputs price and interest rates on agricultural loans, these negative impacts pushed the government to return to the agricultural support according to a new policy based on the support of producing farmers instead of all the farmers.

Anderson and Valenzuela (2008) offered a new and innovative global dataset compiled under the World Bank's agricultural distortions projects. Swinnen (2010) reviews the main explanations for the agricultural support policies which shift from taxing agriculture to subsidizing and supporting farming.

Meyer (2011) suggests that microfinance offers a partial solution for the agricultural sector and he recommend to avoid interest rate controls and to allocate subsidies for building institutions and financial infrastructures which will contribute to the success of microfinance.

Past literature is based on historical and analytical methodology while the results of this study are based on an empirical model. The author cannot find any research that link the rural housing programs with agricultural activity; thus, this study gives a primary vision on the impact of such type of agricultural support policies on agricultural activity.

3. DATA & METHODOLOGY

3.1. Panel Data

To test the study hypotheses and answer the problem, we select a sample of three areas situated in Ain M'lila province (Ain M'lila centre, Ouled-Gacem and Ouled-Hamla), during the time period 2004-2014 to run a balanced panel data regression. The data provided by *The sub-division of the Directorate of Agricultural Interests of Ain M'lila province*, and the only criterion for the Data selection is the period of application of the financial rural housing support policy which launched in 2004 and stopped in 2014.

To build the study model, the agricultural activity (AGAC) is used as a dependent variable. The dependent variable is an Index of 17 types of agricultural goods with equal weights calculated as follows: Agriculture Activity (AGAC) = mean (Cereal production (5 goods), Animals production (3 goods), Seasonal production (4 goods), other goods production (5). Summary of descriptive statistics are showing in *table 1* in the appendix. In this study, there is one crucial independent variable which is the amount of financial support allocated to the rural housing.

3.2. Modeling

The model under Panel-Data regression is given by:

$$Y_{i,t} = a_i + \beta X_{i,t} + \varepsilon_{i,t} \tag{1}$$

where $Y_{i,t}$ is an index represent the agricultural activity of the area i in period t; and a_i represents the influence of each area by restricting the determinants of the agriculture activity that cannot be calculated through the explanatory variable, thus, it calculated the characteristics that we cannot seen across areas with the stability of time, and this effect either be subject to the model itself, fixed effects or random effects, by applying the "Hausman" test; β is the estimated coefficient of the explanatory variable (the amount of financial support allocated to the rural housing) for the model; and $X_{i,t}$ is the explanatory variable of the model for the area i in the period t. The last term $\varepsilon_{i,t}$ is a vector of random error of the area i in period t.

The model equation can be formulated in the light of the sample data as follows:

$$AGAC_{i,t} = a_i + \beta_1 X\,(\text{Housing}) + \varepsilon_{i,t} \tag{2}$$

3.3. Model estimation

3.3.1. Best Estimated model (Static Analysis)

The basic formula of the panel data regression was provided by Green (2012); There are three possible models depending on the different Individual Effect a_i per sectional units, and it is supposed that this impact is constant over time and Particular to each sectional unit. If the individual impact a_i is the same for all sectional units, the model is the Pooled OLS regression, and it estimated by the ordinary least squares method. In the case of individual impact a_i vary across the sectional units over time; the model can be one of two basic models:

- **Fixed Effect Model:** the individual Effect a_i is fixed and specific for each sectional unit (for each area in this study). There are several ways to estimate this model. In this study i will rely on the List Square dummy variables method, which consisted on adding dummy variables that take two values (1.0) as an independent variables in the model. This model can be formulated as:

$$Y_{i,t} = Da_i + \beta X_{i,t} + \varepsilon_{i,t} \tag{3}$$

where D is a matrix of dummy variables, $Y_{i,t}$ and $X_{i,t}$ the observations of each sectional unit i in period t. These terms can be written more detailed as follows:

$$\begin{bmatrix} Y_1 \\ Y_2 \\ \vdots \\ Y_n \end{bmatrix} = \begin{bmatrix} i & 0 & \dots & 0 \\ 0 & i & \dots & 0 \\ \vdots & & & \\ 0 & 0 & \dots & i \end{bmatrix} \begin{bmatrix} a_i \\ a_2 \\ \vdots \\ a_n \end{bmatrix} + \begin{bmatrix} X_1 \\ X_2 \\ \vdots \\ X_n \end{bmatrix} \beta + \begin{bmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \vdots \\ \varepsilon_n \end{bmatrix} \quad (4)$$

- **Random Effect Model**: in this model, the individual impact a_i considered as a part of the error component of the model. To estimate this model, we will rely on the Generalized List Square method. The formula of this model can be given as follows:

$$Y_{i,t} = a + \beta X_{i,t} + \varepsilon_{i,t} \quad (5)$$

where $\varepsilon_{i,t} = a + u_t + u_{i,t}$. The random error $\varepsilon_{i,t}$ includes three components, the individual impact a_i and the temporal properties u_t, and the third component represents the rest of the remaining neglected variables that change between sectional unit and over time.

3.3.2. Dynamic OLS Panel-Data Model

Dynamic panel data method will be able to estimate the possible relation between independent variables and lagged values of dependent variable. To develop a panel dynamic OLS model, Stationarity tests should be applied, then the cointegration test will indicate if the tow variables have a long run association ship, which can be formulation in a Dynamic OLS Panel-Data equation.

4. RESULTS AND DISCUSSION

According to the static analysis of panel-data, we built three models and the following table illustrated the panel-data regression results:

Table 1: Results of the Static Analysis of Panel-Data (where DV = AGAC)

The model	Pooled OLS	Fixed Effect Model	Random Effect Model
Constant	13628.74*	14227.32*	14165.78*
Housing	10.54462*	-1.427129	5.637088
D2	/	2372.343*	/
D3	/	-237.7647	/
R^2	0.131473	0.835363	0.036714
R2 (Adjusted)	0.100454	0.719149	0.002311
F (statistic)	4.238499 [0.048929]	7.188140 [0.000160]	1.067187 [0.310422]
Restricted F	55.58027	/	/
Hausman (statistic)	/	/	11.030686 [0.0009]
Observation	30	30	30

***stands for the statistically meaningful at a level of 5%. The values in the brackets show the probability values of test statistics.*

Source: *Those results obtained by EViews 8 based on the sample data provided by The sub-division of the Directorate of Agricultural Interests of Ain M'lila province.*

To choose between the pooled OLS model and the Fixed effect model, Restricted F test was applied; (F) statistics has been calculated according to the formula:

$$F(N-1, NT-N-K) = \frac{\left(R_{FEM}^2 - R_{PM}^2\right)/N-1}{\left(1-R_{FEM}^2\right)/\left(NT-N-K\right)} \tag{6}$$

where, R_{FEM}^2 is the R^2 of the fixed effect model, R_{PM}^2 is the R^2 of the pooled OLS model and K is the number estimated parameters as it appears in *Table 1*.

The calculated (F) statistics reached 55.58 and it is greater than the tabulated value of (F) statistics amounted to 3.71, According to the restricted F test the best appropriate model for the study between the two models is the fixed effects model (the model variables and its coefficients are illustrated the third column of the *Table 1*).

The second step is to choose between the fixed effects model and random effects model. Hausman (1978) test was applied and Hausman test statistics (χ^2) is found as meaningful in level of 5% (as shown in *Table 1*). Thus fixed effects model is more appropriate for this study.

According to the assumption results of *the fixed effect model* in which the relationship between the amount of financial support allocated to the rural housing (Housing) and Agriculture Activity (AGAC) is tested, it is found that there is a negative and non meaningful relationship as statistically in level of 5% (the coefficient of the variable housing is -1.42, negative and t-test is non-meaningful at 5%). Accordingly, we cannot use *the fixed effect model* to test the study hypotheses. However, dynamic panel data method is the most suitable model to be applied, because the impact of the financial support allocated to the rural housing policy will only appear after a period of time, thus the dynamic panel data will be able to estimate the possible relation between independent variables and lagged values of dependent variable.

To develop a panel dynamic OLS model, Stationarity tests should be applied, augmented Dickey-Fuller (1979, 1981) and Philips and Perron (1988) tests can help to avoid false results through stationary test of times series**.** Our results drawn from stationary tests allow a rejection of the null hypothesis in first difference that signify no Stationarity in all our series, but enable an acceptation at a level, that signify integration of the variables at order 1. Stationarity tests at level and first difference shown in *Table 2* as follows:

Table 2: Stationarity Tests Results

Variables	ADF		PP	
	Level	First difference	Level	First difference
AGAC	1.55765 [0.9556]*	37.4557 [0.0000]	0.67771 [0.9950]	41.6475 [0.0000]
Housing	4.95415 [0.5497]	39.3385 [0.0000]	3.87240 [0.6939]	18.9623 [0.0042]

The values in the brackets show the probability values of test statistics.* **Source: *Those results obtained by EViews 8 based on the sample data provided by the sub-division of the Directorate of Agricultural Interests of Ain M'lila province.*

Engle and Granger (1981, 1987) in their paper, estimated cointegration of non-stationary time-series variables for demonstrating the existence of cointegration between two macroeconomic variables implies a true long-run economic relationship. Stationarity tests results permit to develop a panel co-integration model. I started with the cointegration test which shown in *table 3*. For this purpose, Pedroni test was applied and most probabilities corresponding calculated statistics are less than 5%, which mean that we can reject the null hypothesis that signify there is a cointegration among the study variables, and have the tow variables have a long run association ship.

Table 3: Cointegration Test

	Statistic	Probability
Alternative hypothesis: Common AR Coefficient (within-dimension)		
Panel PP-Statistic	-1.887324	0.0296
Panel ADF-Statistic	-1.977308	0.0240
Alternative hypothesis: Individual AR Coefficient (between-dimension)		
Group PP-Statistic	-2.552473	0.0053
Group ADF-Statistic	-2.222010	0.0131

Source: *Those results obtained by EViews 8 based on the sample data provided by the sub-division of the Directorate of Agricultural Interests of Ain M'lila province.*

Granger causality test of Clive Granger (1969) was used to determine whether the variable Housing (rural housing financial support) is useful in causing AGAC (Agricultural Activity) with lagged values of two variables included. Granger causality test reported in *Table 4* made it clear that one direction flow at 5% significance level for Housing program to Agricultural Activity.

This Unidirectional relationship can be clarified how Agricultural Activity in Ain M'lila province is depend on the rural housing financial support amounts change to the effect that investors in industrial and commercial sectors have an incentive represented in the rural housing program subsidies, which make them expanding their activities to envelope the agricultural sector.

Table 4: Granger Causality

Pairwise Granger Causality Tests			
Lags: 5			
Null Hypothesis:	Obs	F-Statistic	Prob.
Housing does not Granger Cause **AGAC**	15	7.69094	0.0352
AGAC does not Granger Cause **Housing**		2.22246	0.2296

Source: *Those results obtained by EViews 8 based on the sample data provided by the sub-division of the Directorate of Agricultural Interests of Ain M'lila province.*

Our two variables are co-integrated, we can develop a panel dynamic OLS model, the cointegration regression results indicated that the coefficient of the independent variable (Housing) is significant at 5 % level; (***see equation (7)***).

$$AGAC = 139.2071 \text{ Housing}$$
$$t=10.37478$$
$$[0.0000]$$

These findings are supporting the study hypothesis and could be interpreted as economically that if the amount of financial support allocated to the rural housing goes up by one unit the index of agriculture activity goes up by 139.2071 unit at the long-run.

5. CONCLUSION

In this paper, the author investigates the impact of rural housing support on agricultural activity, results show that there is a co-integrated relationship in the long run between the amount spent on rural housing support and the evolution of agricultural activity in Ain M'lila province. The estimated Dynamic Panel-Data Model confirms that the increase in the rural housing subsidies amounts by one unit leads to raise the agricultural activity by 139.21 units. The results obtained can be generalized to the rest of Algerian provinces, as Ain M'lila is a commercial and industrial province, however, the adopted rural housing policy succeeded in attracting investors to the rural areas which reflected positively on the agricultural activity. This paper recommends the Algerian government to press ahead with this policy because of its positive impact on agricultural activity.

REFERENCES

Ammari, Z. (2014). The agricultural sector in Algeria between available resources and the problematic self-sufficiency... Where is the fault?! Empirical Study since 1980 [Sustainability of food security in the Arab world]. Retrieved from Chlef university: http://www.univ-chlef.dz/fsecsg/index.php?option=com_content&

Anderson K.; Valenzuela E. (2008). "Estimates of Global Distortions to Agricultural Incentives, 1955 to 2007", *World Bank, Washington DC*, Retrieved from World Bank, URL: http://www.worldbank.org/agdistortions.

Awokuse, T. O.; Xie, R. (2015). "Does Agriculture Really Matter for Economic Growth in Developing Countries?" *Canadian Journal of Agricultural Economics/Revue canadienne d'agroeconomie*, **63**: 77–99. doi: 10.1111/cjag.12038

Ayache, K. (2012). Agricultural development policy in Algeria: the case of the National Plan for Agricultural Development 2000-2007. (Magister dissertation). Retrieved from SNDL national System of Online Documentation Database. (Accession No. THA3.11842).

Dickey DA & Fuller W A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica* **49**:1057-72.

Dickey, D.A. and W.A. Fuller (1979). “Distribution of the Estimators of Autoregressive Time Series with a Unit Root”. *Journal of American Statistical Association*, 427-431.

Djermouli, M. (2006). Agricultural policy in Algeria and it's reforms. (Doctoral dissertation). Retrieved from SNDL national System of Online Documentation Database. (Accession No. THA3.3623).

Engle, R.F. and C.W.J. Granger (1987). “Co-integration and Error Correction: Representation Estimation and Testing.” *Econometric* volume 55, Issue 2, 251-276.

GAR-ON, A. Y. ; LI X. (1999). “Economic Development and Agricultural Land Loss in the Pearl River Delta, China“. *Habitat International* **23**(3): 373-390. doi:10.1016/S0197-3975(99)00013-2.

Ghatak, S.; Ingersent, K. (1984). Agriculture and economic development. Prentice Hall / Harvester Wheats. ISBN 10: 0710801378.

Godoy, D. C.; Dewbre, J. (2010). Economic agriculture Poverty reduction Macroeconomic Trade policy developments Vietnam [Policies for Agricultural Development, Poverty Reduction and Food Security, OECD Headquarters, Paris]. Retrieved from Resource Collection Reference of Giang University Library. URL: http://lib.agu.edu.vn:8180/collection/handle/123456789/4140.

Granger, C. W. (1981). “Some properties of time series data and their use in econometric model specification.” *Journal of econometrics*, ***16***(1), 121-130.

Granger, C. W. J. (1969). “Investigating Causal Relations by Econometric Models and Cross-Spectral Methods. “ *Econometrica* **37**, 424-438.

Greene, W. (2012). Econometric Analysis. Seventh *Edition*. Pearson Education Limited. *ISBN* 978-0-13-139538-1.

Hausman, J. A. (1978). “Specification Tests in Econometrics”. *The Econometric Society*, 46 (6): 1251-1271. DOI: 10.2307/1913827. Jstor 1913827.

Helmsing, A.H.J. (2001). “Local Economic Development New generations of actors, policies and instruments. “*Public Administration and Development*. Wiley. 23 (1): 67–76. DOI: 10.1002/pad.260.

Jacobs, P. (2003). Support for agricultural development. the Programme for Land and Agrarian Studies, School of Government, University of the Western Cape. ISBN: 1-86808-582-1.

McMahon, J. A. ; Cardwell M. N. (2015). Research Handbook on EU Agriculture Law. Edward Elgar Publishing. ISBN: 9781781954614.

Meyer, R. L. (2011). Subsidies as an Instrument in Agriculture Finance : A Review. World Bank, Washington, DC. Retrieved from World Bank. https://openknowledge.worldbank.org/handle/10986/12696.

Okolo, D. A. (2004). “Regional Study on Agricultural Support: Nigeria’s Case“. being Special Study Report prepared for Food and Agricultural Organization (FAO).

Phillip P.C.B. and Perron P. (1988). “Testing for a unit root in time series regression.“ Biometrika, Vol 75, pp. 335-346.

Ramesh, C.; Linu M. P. (2001). “Subsidies and Support in Agriculture: Is WTO Providing Level Playing Field?” *Economic and Political Weekly*, **36**(32): 014-3016. JSTOR 410962.

Swinnen, J. F. (2010). “Political Economy of Agricultural Distortions: the Literature to Date. “ *The Political Economy of Agricultural Price Distortions*, 81-104.

Timmer, C. P. (1992). “Agriculture and economic development revisited. “*Agricultural Systems, Elsevier*, vol. 40(1-3): 21-58.

Tonts; M. ;Siddique, M.A. (2011). Globalisation, agriculture and development: perspectives from the Asia- Pacific. Edward Elgar Publishing. ISBN: 978 1 84720 818 7.

view =article&id=163 &Itemid=5.

Yusuf, S. A. (2014). "Role of Agriculture in Economic Growth & Development: Nigeria Perspective. " *MPRA Paper 55536*, University Library of Munich, Germany. Retrieved from https://mpra.ub.uni-muenchen. de/55536/1/MPRA _paper_55536.pdf.

Zbiri, R. (2004). "Limits and effectiveness of state support in the Algerian agricultural policy." *Journal of humanities sciences,* volume 1, Issue 5, 1-13.

APPENDIX

Figure 1: Brent Crude oil price in US dollars per barrel (2000-2015)

Source: **The chart is compiled using the daily price from 4 January 2000 to 12 January 2015. Data from: http://www.eia.gov/.**

Table 1: Summary of descriptive Statistics of the study sample

	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**	**Skewness**	**Kurtosis**
Housing	30,00	20,00	338,00	109,43	91,73	1,41	1,26
Durum Wheat	31,00	2647,00	68589,00	25021,61	19882,79	0,65	-0,94
Soft wheat	31,00	625,00	21484,00	7971,23	7143,48	0,66	-1,19
Barley	31,00	3064,00	30800,00	14230,48	8026,76	0,19	-0,95
Oat	31,00	350,00	2653,00	1143,61	599,11	0,69	-0,31
Dodder	31,00	14176,00	103600,00	38365,29	17766,19	1,93	5,24
Tobacco	30,00	0,00	3360,00	804,77	875,36	1,12	0,89
Gardening	31,00	2380,00	127174,00	76055,90	26239,49	-0,41	0,74
Potato	31,00	6950,00	84552,00	34977,10	16623,15	0,61	1,29
Onions	31,00	1230,00	19865,00	8372,03	5906,05	0,67	-0,66
Cattle	31,00	22,00	12144,00	1853,58	3042,20	2,43	5,14
Sheep	31,00	227,00	9803,00	4588,03	2737,16	0,48	-0,63
White mea	31,00	491,00	14317,00	4288,26	3221,59	1,56	2,18
Milk 10^3 liters	31,00	615,00	8642,00	3517,61	2188,56	0,84	-0,14
Eggs 10^3 units	31,00	123,00	56566,00	14322,29	17114,65	1,33	0,60
Honey (Qx)	31,00	0,00	34,00	5,87	7,49	2,12	5,55
Wool (Qx)	31,00	131,00	769,00	347,16	189,54	1,08	0,50
AGAC	31,00	10947,00	21921,00	14764,68	2624,63	0,78	0,30

Source: Data provided by The sub-division of the Directorate of Agricultural Interests of Ain M'lila province.