

Studies in Agricultural Economics

Volume 115, Number 3

Editor-in-Chief

Andrew F. FIELDSSEND

Agrárgazdasági Kutató Intézet, Budapest, Hungary

Chairman of the Editorial Board

POTORI Norbert

Agrárgazdasági Kutató Intézet, Budapest, Hungary

Editorial Board

Sabine BAUM

Halle (Salle), Germany

Štefan BOJNEC

Univerze na Primorskem, Koper, Slovenia

Richard M. CRUSE

Iowa State University, Ames, USA

Sophia DAVIDOVA

University of Kent, Canterbury, UK

Thomas DAX

Bundesanstalt für Bergbauernfragen, Wien, Austria

FARKASNÉ FEKETE Mária

Szent István Egyetem, Gödöllő, Hungary

FEHÉR Alajos

Debreceni Egyetem, Debrecen, Hungary

FELFÖLDI János

Debreceni Egyetem, Debrecen, Hungary

FERTŐ Imre

Budapesti Corvinus Egyetem, Budapest, Hungary

Matthew GORTON

University of Newcastle, Newcastle, UK

David HARVEY

University of Newcastle, Newcastle, UK

Wim J. M. HEIJMAN

Wageningen University, Wageningen, The Netherlands

Carmen HUBBARD

University of Newcastle, Newcastle, UK

Mária KADLEČÍKOVÁ

Slovenská poľnohospodárska univerzita v Nitre, Slovakia

KAPRONCZAI István

Agrárgazdasági Kutató Intézet, Budapest, Hungary

KEREKES Kinga

Universitatea Babeş-Bolyai, Cluj-Napoca, Romania

MAGDA Róbert

Károly Róbert Főiskola, Gyöngyös, Hungary

Jan W. OWSIŃSKI

Instytut Badań Systemowych, PAN, Warszawa, Poland

POPP József

Magyar Tudományos Akadémia, Budapest, Hungary

Włodzimierz REMBISZ

Instytut Ekonomiki Rolnictwa i Gospodarki

Zywnościowej - PIB, Warszawa, Poland

SZABÓ G. Gábor

MTA Közgazdaság-Tudományi Intézet, Budapest, Hungary

SZÉKELY Csaba

Nyugat-Magyarországi Egyetem, Sopron, Hungary

Vladimír SZÉKELY

Geografický ústav, SAV, Bratislava, Slovakia

TAKÁCSNÉ GYÖRGY Katalin

Károly Róbert Főiskola, Gyöngyös, Hungary

TÓTH József

Budapesti Corvinus Egyetem, Budapest, Hungary

Hillka VIHINEN

MTT Taloustutkimus, Helsinki, Finland

Associate Editor

MIHÓK Zsolt

Agrárgazdasági Kutató Intézet, Budapest, Hungary

Technical Editor

BARNAFI László

Agrárgazdasági Kutató Intézet, Budapest, Hungary

Contents

FOREWORD

BOOK REVIEW

ARTICLES

The Common Agricultural Policy 2014-2020: an impact assessment of the new system of direct payments in Hungary 118

POTORI Norbert, KOVÁCS Máté and VÁSÁRY Viktória

Determination of the fair value of a multifunctional family farm: a case study 124

Vilija ALEKNEVIČIENĖ, Neringa STONČIUVIENĖ and Danutė ZINKEVIČIENĖ

Non parametric methods to assess the role of the CAP in regional convergence in Hungary 134

Irene MONASTEROLO and Federica BENNI

Associations with plant genetic engineering: A perception analysis of students' hopes and fears 143

Marlen GOLDSCHMIDT and Franz X. BOGNER

An analysis of Hungarian agri-food export competitiveness 150

JUHÁSZ Anikó and Hartmut WAGNER

International section

Terms of trade, capital accumulation and the macro-economy in a developing country: a theoretical analysis 157

Jonaki SENGUPTA, Ranjanendra Narayan NAG and Bhaskar GOSWAMI

Did technological intervention help to spare land from agriculture: evidence from post liberalisation India 166

Amarendra Pratap SINGH and Krishnan NARAYANAN

Short communication

Which legal form of agricultural firm based on return on equity should be preferred? A panel data analysis of Slovak agricultural firms 172

Drahošlav LANČARIČ, Marián TÓTH and Radovan SAVOV

ABSTRACTS OF AKI PUBLICATIONS

INFORMATION FOR AUTHORS

Manuscripts should be prepared in English and sent via e-mail to the Editor-in-Chief at studies@aki.gov.hu.

The cost of printing this issue is supported by the Hungarian Academy of Sciences. *Studies in Agricultural Economics* volume 115 number 1 was similarly supported.

© Agrárgazdasági Kutató Intézet, 2013

1463 Budapest, POB 944, Hungary

<https://www.aki.gov.hu/studies>

HU ISSN 1418 2106 (printed)

HU ISSN 2063 0476 (electronic)

Established 1962

Foreword

Studies in Agricultural Economics has developed considerably over the last two years and now offers a very attractive package to authors, namely:

- Impact factor 0.1 (CitEc, 2012);
- Internationally respected Editorial Board;
- Papers are ‘double-blind’ peer reviewed;
- Accepted papers are proof read by a native English speaker;
- Papers are immediately published online, complete with Digital Object Identifier (DOI);
- Papers are also published in printed form;
- There are no publication fees of any kind;
- A ‘content alert’ is sent out by email to over 9,000 recipients;
- Full papers can be accessed via the AgEcon Search repository (<http://ageconsearch.umn.edu/>);
- Papers are abstracted in the CABI Agricultural Economics Database.

The increasing interest in publishing in the journal as a result of this package has enabled the publication of a third issue this year. In turn, this has allowed us to experiment with two innovations. Firstly, the appearance of an ‘international section’. The main geographical focus of *Studies in Agricultural Economics* is Europe, especially eastern central and south eastern Europe. However, European agriculture operates in a global marketplace and European agricultural economists must maintain their awareness of topics of international significance. Secondly, the inclusion of a ‘short communication’. *Studies in Agricultural Economics* welcomes such contributions that might deal with the economic aspects of policy, with the results of small research projects not justifying a full-length article, or comment on articles previously published.

Anticipating the start of the new European Union (EU) programming period in January 2014, Potori, Kovács and Vásáry model the impact in Hungary of the new system of direct payments under the Common Agricultural Policy (CAP). They conclude that, from an economic point of view, the redistributive payment would have no advantage over the capping of direct payments.

The study by Aleknevičienė, Stončiuvienė and Zinkevičienė reflects the increasing attention being paid in European agriculture to ‘public goods’. It tests a model for the determination of the fair value of a multifunctional family farm that takes into account not just cash flows from

financial support and earnings but also the value of created public goods and externalities.

Regional convergence is another topical issue in Europe and research by Monasterolo and Benni shows increasing divergence both within Hungarian NUTS 3 regions and between the eastern EU Member States NUTS 3 regions, especially after Hungary joined the EU. The role of the CAP in promoting cohesion in Hungary is found to be limited.

Goldschmidt and Bogner evaluate the perceptions of *Realschule* students in Bayern, Germany with regard to their hopes and fears in the context of plant genetic engineering. The majority of the students did not express strong views on the topic. The authors suggest that a perceived lack of relevance or a low interest in the topic may be the cause.

In their overview of the export growth trends in the Hungarian agri-food sector, Juhász and Wagner show that, almost without exception, the increasing market size accounted for most of the export growth to 14 countries. The grain sector is the success sector, although it is represented only by maize and wheat. The logistics of the Hungarian agricultural sector are still unsatisfactory.

The first paper in the international section, by Sengupta, Nag and Goswami, continues the theme of international trade. Using a macro model specially designed for economies in which the agricultural sector still plays a major role, they show that the short run and long run effects of shocks (e.g. monetary, changes in agricultural production and government expenditure) are different.

Another topic of international importance is availability of agricultural land. Singh and Narayanan conclude that the economic development experienced by India in the post liberalisation period failed to reverse agricultural land expansion in the country. Net State Domestic Product per capita, cropping intensity and cereal yield are explanatory factors. Some conditions under which agricultural land expansion may start reversing are identified.

Finally, a short communication from Lančarič, Tóth and Savov reports that, from the point of view of return on equity, in the Slovak Republic the legal form ‘company’ is preferable over ‘cooperative’.

I trust that all readers will find something of interest in this issue of *Studies in Agricultural Economics*.

Andrew Fieldsend

Budapest, November 2013

Reviewers

Dr. Sabine BAUM • Prof. Richard CRUSE • Dr. FARKASNÉ FEKETE Mária • Dr. FELFÖLDI János
 Dr. FOGARASI József • Dr. Jan GADOMSKI • Dr. Matthew GORTON • Dr. JÁMBOR Attila • Prof. Dr. Mária KADLEČÍKOVÁ
 Dr. KISS Judit • Dr. MAGDA Róbert • Dr. MIZIK Tamás • Dr. Jan OWSIŃSKI • Prof. Dr. POPP József • Prof. Dr. Włodzimierz REMBISZ

Editorial Advisory Panel

CSÁKI Csaba, Budapesti Corvinus Egyetem, Budapest, Hungary • KERÉKES Sándor, Kaposvári Egyetem, Kaposvár, Hungary
 KISS Judit, MTA Világgazdasági Kutatóintézet, Budapest, Hungary • LEHOTA József, Szent István Egyetem, Gödöllő, Hungary
 SCHMIDT Rezső, Nyugat-Magyarországi Egyetem, Sopron, Hungary • SZABÓ Gábor, Magyar Tudományos Akadémia, Budapest, Hungary
 SZAKÁLY Zoltán, Debreceni Egyetem, Debrecen, Hungary • VÉHA Antal, Szegedi Tudományegyetem, Szeged, Hungary

Book review

Francesco FELICI, Annalisa DE LUCA and Silvia GHIRIBELLI:

Tools and methods for sustainable development of the rural territories*

* Istituto Regionale Programmazione Economica Toscana, 72 pp.

This study was published within the European Union (EU) Interreg IIIC project *Rural Innova*, which established an interregional rural development network. It was an output of Component 5, *Governance and sustainable development*, which sought to identify tools and methods that can be used for strategic analysis, territorial forward planning and the evaluation of rural development policy, programmes and projects, by means of a renewed governance and in the context of sustainable development.

The purpose of the study was to identify and test a set of non-agricultural rural development indicators that would be of particular value in quantitatively and qualitatively evaluating the impact of the (then) Leader+ programme. Hence the research is divided into two parts.

Following a brief introductory chapter that summarises the overall project methodology, chapter 2 describes how key-word analysis of local rural development planning documents from several EU regions was used to compare the degrees of importance attached to the economic, environmental, social and participation components of sustainable development. Although clear differences were evident between regions, only the latter (participation) would appear to be under-represented in many documents. However, when project partners were asked which of the components received greater attention, economic and environmental predominated. From this the report concludes that there is a lack of evaluation tools and indicators for the social and participation dimensions.

Chapter 3 begins by reviewing some of the more widely-used definitions of 'rural' and wisely concludes that 'there is not one single concept of rural area'. Then, using the OECD classification of predominantly rural, significantly rural and predominantly urban, it briefly describes the economic (GDP, employment structure, and per cent economically active population), social (age structure) and environmental (landscape structure) situations in each *Rural Innova* region.

Using the above evidence, in Chapter 4 a set of 39 non-agricultural indicators of sustainable development in rural areas is compiled, covering economic (13), social (8), environmental (14) and participation (4) themes. These are drawn from well established indicator sets such as OECD, Eurostat and the EU Common Monitoring and Evaluation Framework (CMEF).

The authors observe that an analysis of individual indicators can lead to a distorted view of reality and Chapter 5 introduces the second part of the study by using principal component analysis to reduce 18 (mainly economic) CMEF indicators to five composite indicators (attraction of the territory; low degree of tertiarisation; entrepreneurship; social component; and environmental component). It is, however, only an exercise for illustration that is not followed up later in the report.

Chapter 6 describes how, by means of a questionnaire, the usability, utility and 'SMART' features of the proposed indicators were assessed by eight Local Action Groups and eight provinces in Regione Toscana. The authors note that that the interviewees expressed a 'degree of surprise' as to some indicators, possibly because they were non-agricultural or alternatively because they were not related to the normal work of the interviewees. The indicators were arranged into eight groups and interviewees were asked to (a) remove one or more indicators, (b) assess the suitability of the remaining indicators as regards sustainable development in rural areas and (c) then propose one or more additional indicators. The evaluations were very positive, ranging (on a 0-10 scale) from 6.8 for 'transport' to 8.3 for 'structure of the economy'.

The process for selecting the final list of indicators of sustainable development is described in chapter 7. The reasoning for including each indicator, the comments of the project partners, the opinions of the interviewees and the sustainable development objectives of the EU were used as criteria for selecting the final indicator list. The result is a set of 35 indicators covering economic (structure of the economy; labour market), social (demography; health and public services), environmental (biodiversity and landscape; soil, waste, water and energy; transport) and participation (Leader, Agenda 21 and e-government) themes. Each indicator is accompanied by its units of measurement.

It is always possible to question the validity of some of the results of such a study. For example, this reviewer would not include 'number of museums and cinemas per head of population' in his personal top-35 list of rural development indicators. There are also a number of avoidable typos (for example, East Wales is not in the East of England). However, the authors deserve credit for producing a piece of work that is thought-provoking in a number of respects. Firstly it goes beyond the mindset of equating rural development with agricultural development. Secondly, its emphasis on the importance of indicators of participation anticipated a trend that is now well established. Thirdly, the research is evidence based, using well established indicators that are validated by rural development practitioners.

The study is therefore a useful source of ideas for those with an interest in the important topic of how to assess the impacts of non-agricultural rural development policies.

Copies of Tools and methods for sustainable development of the rural territories can be obtained free of charge by emailing studies@aki.gov.hu.

Reviewed by Andrew Fieldsend, Budapest. andrew.fieldsend@aki.gov.hu

Abstracts of AKI publications

The results of AKI's research work are presented in detail in a series of Hungarian language publications. English language abstracts are reproduced below. The publications may be downloaded from the AKI website (www.aki.gov.hu) or requested in printed form from aki@aki.gov.hu.

STUMMER Ildikó and colleagues

The market developments of the most important commodities in 2012

Agroeconomic Information, published 2013

This publication discusses the market developments of the most important commodities in 2012, mainly by presenting price trends. The material is based on the price information and data of the Market Price Information System of the Research Institute of Agricultural Economics and of various Hungarian and international sources. In 2012, milling wheat producer prices increased by almost 17 per cent, and feed wheat and maize prices increased by 28 per cent and 16 per cent respectively. The producer price of sunflower seed increased by 14 per cent to HUF 128 thousand tonne⁻¹. The price of rapeseed was HUF 140 thousand tonne⁻¹, a 17 per cent increase over the previous year. The only sugar factory in Hungary purchased 848 thousand tonnes of sugar beet in

2012, from which 112 thousand tonnes of sugar were produced. As in previous years, in 2012 Hungarian pork prices followed the trends of prices in the European Union. Pig producer prices were 17 per cent higher than one year earlier. Producer prices of slaughter chickens increased by 8 per cent in 2012. Cattle producer prices in Hungary increased by 14 per cent and those of light lambs increased by 1.5 per cent in 2012. The producer price of raw milk in Hungary stagnated. The production of vegetables declined in 2012 compared to 2011, but the production of fruit increased because of the higher apple production. The processors' sale prices of table and regional wine increased by 16 per cent in 2012 compared to the previous year.

VÁGÓ Szabolcs (ed.)

Hungarian Food and Agricultural Statistics 2012

Agroeconomic Information, published 2013

The publication provides information on the results achieved in 2012 in agriculture, forestry and food industry. We assured the comparability of time-series in connection with the pocketbooks published in the recent years. Besides the national and branch indicators and data, the principal agricultural data are also given in details by counties. The

international data are suitable to demonstrate the main trends. The published data are compiled on the basis of the publications of the Central Statistical Office, EUROSTAT, the Food and Agricultural Organization (FAO) and the Research Institute of Agricultural Economics.

JANKUNÉ KÜRTHY Gyöngyi, STAUDER Márta and GYÖRE Dániel

The productivity and profitability of the food sale sector in Hungary

Agroeconomic Book, published 2013

This study analysed the productivity and profitability of food sales in Hungary using classic financial methods. Our main source of data was the database of the Hungarian National Tax Office on the tax returns of the joint ventures operating in the sector in the period 2005-2010. We investigated separately the food retail and food wholesale sectors, and within these the sub-sectors, the different size groups of the firms and, in the case of the food retail sector, also the different shop types. In addition to the analysis of financial data and indexes we studied the different factors that influence the productivity and profitability of the sector, such as consumption, demand, competition, concentration and

regulation. We also compared the Hungarian productivity and profitability indexes to international data. We concluded that the sector in Hungary entered a new phase in the second half of the 2000s. Market saturation is high and prospective newcomer chains have no desire to enter the Hungarian market. Furthermore, there are signs indicating that a trade war centred on the redistribution of the market has started. These factors influence the profitability of the sector. Financial data show that the profitability of the sector, especially of food retailing, declined significantly between 2005 and 2010 and that this trend has been especially evident in the case of large firms.

VARGA Eszter**The role of civil organisations in Hungarian rural development**

Agroeconomic Study, published 2013

This study analysed the productivity and profitability of food sales in Hungary using classic financial methods. Our main source of data was the database of the Hungarian National Tax Office on the tax returns of the joint ventures operating in the sector in the period 2005-2010. We investigated separately the food retail and food wholesale sectors, and within these the sub-sectors, the different size groups of the firms and, in the case of the food retail sector, also the different shop types. In addition to the analysis of financial data and indexes we studied the different factors that influence the productivity and profitability of the sector, such as consumption, demand, competition, concentration and regulation. We

also compared the Hungarian productivity and profitability indexes to international data. We concluded that the sector in Hungary entered a new phase in the second half of the 2000s. Market saturation is high and prospective newcomer chains have no desire to enter the Hungarian market. Furthermore, there are signs indicating that a trade war centred on the redistribution of the market has started. These factors influence the profitability of the sector. Financial data show that the profitability of the sector, especially of food retailing, declined significantly between 2005 and 2010 and that this trend has been especially evident in the case of large firms.

BIRÓ Szabolcs and colleagues**Innovation in Hungarian agriculture and rural development**

Agroeconomic Book, published 2013

This publication explores the opportunities for the application of innovation in agriculture and rural development in Hungary. The creation of a knowledge and innovation-based, competitive and successful Hungarian economy is crucial, especially regarding the development of rural areas. Considering the global trends, apart from technological development innovation can nowadays be characterised by risk-reducing, well organised innovation systems and cooperation through networks. As well as offering economic benefits, innovation can have a decisive role in societal transformation. Compared to the European Union, innovation performance in Hungary is modest. The country lags significantly behind in R&D, in the innovation performance of firms and in relationship building between the innovation actors. In Hungarian agriculture and rural development the market based innovation system building on endogenous resources is not working. The innovation chain is narrow and underdeveloped, the majority of the innovations implemented in rural areas are small-scale and – without knowledge, equity and business relationships

– are not viable. Slow dissemination is accompanied by problems that hit rural areas cumulatively, such as an unqualified workforce, a lack of entrepreneurial skills, slow information flow, underdeveloped basic infrastructure, and the risk avoiding, suspicious attitude of the majority of farmers coupled with a disinterest towards innovation. Our research shows that in agricultural innovation the primary areas of intervention are the innovative projects that boost the competitiveness and value added of farms and food processing enterprises, the utilisation of renewable resources and ICT development. At the same time in rural development the establishment of partnerships aiming at innovation dissemination can create the value added. Innovation in Hungarian agriculture and rural development needs systematisation and expansion of the innovation chain, while dissemination of innovation requires the promotion of innovation results and awareness-raising. Assessment and evaluation of the practice of innovation can be the future research direction of this study.

VARGA Edina, ALICZI Katalin and VÓNEKI Éva (eds)**The current status and the short- and mid-term outlook of the major agricultural production sectors in Hungary**

Agroeconomic Study, published 2013

In this report, we evaluated the status of the major agricultural sectors in Hungary during the period 2008-2012. Furthermore we reviewed the projections by internationally acknowledge organisations and institutions (i.e. the OECD and the FAO, the European Commission and the USDA) about trends on the global agricultural markets which may affect market opportunities of Hungarian agricultural prod-

ucts in the next five to ten years. Given that the results of these international organisations and institutions repeatedly turned out to be incorrect, instead of modelling the short and medium-term structural changes in Hungarian agriculture, we outlined the likely developments in the domestic and international supply and demand situations.

NYÁRS Levente, GARAY Róbert and BÖGRÉNÉ BODROGI Gabriella

Industrial by-products as pig feed in Hungary

Agroeconomic Study, published 2012

The efficiency and productivity of the Hungarian pig sector can only be substantially improved by decreasing production costs. A few percentage points saving in feeding costs, the largest cost element, can lead to a significant improvement in profitability. Competing western European pig farmers are feeding industrial by-products in order to lower costs, and many farms have changed to a wet feeding system which is more suitable for by-product feeding. Wet systems had been installed in many of the Hungarian pig farms prior to the political and economic changes, but they are rare today because the investment costs are higher and the operation is more difficult. Hungarian pig farmers are also looking for dry by-products, but owing to the decline in the food processing industry the available volume is rarely predictable and the quality offered is often variable. Development of the biofuel industry has been slow, and by-products of alcohol production

and oilseed crushing have attracted widespread attention only recently. The market prices of by-products depend on the valuation of the traditional products to be replaced (maize, soybean meal). Feeding by-products usually requires the use of amino acid supplements and special premixes. If Hungarian pig farmers have their own land, they tend to use their own produced grains and look only for additives, rather than rely on by-product feeding, even if the latter offers greater returns. This kind of caution is sometimes reasonable considering the potential quality problems. By-product feeding could be more widespread if farmers were more willing to make purchases together, thereby reaching better deals on bulk buying. Development of vertical integrations, and rebuilding trust between producers and feed manufacturers would also promote safe and effective by-product feeding, thereby saving on feeding costs.

BÉLÁDI Katalin and KERTÉSZ Róbert

The cost and income situation of the major Hungarian agricultural products in 2011

Agroeconomic Information, published 2012

This publication examines the cost and income situation of the major agricultural products in 2011 on the basis of data from the farms of the Hungarian FADN system. The processed data concerns the so-called 'determinant producer farms' that provide the dominant part of domestic production. In addition to the mean data the results of different farming groups are presented. The changes in the cost and income situation of arable crops, horticultural products (fruit and vegetables) and livestock products are analysed in separate chapters. After the extremely wet year in 2010, the weather conditions in 2011 were average and, as a consequence, the yields of the examined arable crops and horticultural prod-

ucts generally increased. The yields of grain maize and sugar beet fell, and the early spring frost caused the failure of some types of fruit crop. The lower unit cost of the arable crops and horticultural products – as a consequence of higher yields – and the higher selling prices resulted in most products being produced at a profit. Owing to subsidies, enterprises made a per-hectare profit in the case of all crops and this was significantly higher than in 2010. Amongst livestock products only the price of hens' eggs and chickens for slaughter did not provide an income greater than the costs of production, in contrast with the other major livestock products, all of which achieved a higher profit in 2011 than in the previous year.

Studies in Agricultural Economics

Information for authors

Studies in Agricultural Economics publishes original research papers, review papers, policy analyses and book reviews on agricultural economics, rural development and related topics including: agricultural production and competitiveness, environmental resource management, agri-food supply chain management, markets and marketing, international trade, econometrics, rural economic geography, rural economy and sociology, and development of information and knowledge based society in rural areas.

Audience

Researchers, academics, policy makers and practitioners in agricultural economics and rural development, especially in eastern central and south eastern Europe.

Submission of manuscripts

Submission of an article implies that the work described has not been published in English in any other peer-reviewed journal, is not under consideration for publication elsewhere, and that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out. The author will retain the copyright of the article but agrees to identify AKI as the original publisher. Papers will not normally exceed 6000 words including the reference list and figure and table captions. Authors intending to prepare a book review should first consult the Editor-in-Chief and such a review should not exceed 2000 words.

Shorter papers and comments, of up to 1500 words, will also be considered for publication. Such notes might deal with the economic aspects of policy, with the results of small research projects not justifying a full-length article, or comment on articles previously published.

Manuscripts should be submitted in .doc or compatible format. They should be prepared using A4 format, TNR 12 pt text and 1.5 line spacing and be in single-column format with wide margins. Do not hyphenate words and use **bold** face and *italics* only sparingly, but use subscripts and superscripts where appropriate. Avoid the use of single-sentence paragraphs. Tables should be placed at the end of the manuscript and figures should be submitted as separate files, numbered accordingly. Page and line numbering must be used but no reference should be made to page numbers in the text. You should use the 'spell-check' and 'grammar-check' functions of your wordprocessor, which should be set to *English* English, to avoid unnecessary errors.

Manuscripts will be double-blind reviewed by at least two reviewers and may be returned to the author(s) for revision before acceptance for publication. The Editor-in-Chief will normally consider only one re-submission.

Article structure

Divide your article into clearly defined sections but do not use section or subsection numbers. Each heading should appear on its own separate line. For research papers you are urged to consider using the following structure:

- **Introduction.** State the objectives of the work and provide an adequate background with reference to the

international literature, but avoiding a detailed literature survey or a summary of the results.

- **Methodology.** Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.
- **Results.** Results should be clear and concise.
- **Discussion.** This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section should normally be avoided. You should show how your results add to existing knowledge but avoid extensive citations and discussion of published literature.

Where it is not appropriate to use the above framework, you should finish the paper with conclusions.

Essential title page information

- **Title.** Concise and informative. Avoid abbreviations and formulae where possible.
- **Running title.** Please provide an abbreviated title of no more than 60 characters (including spaces) that can be used as a running title on the page header.
- **Author names and affiliations.** Present the authors' affiliation addresses (where the actual work was done) below their names.
- **Corresponding author.** Clearly indicate the corresponding author who will handle correspondence at all stages of refereeing and publication, also post-publication. Please provide a telephone and fax number in addition to the e-mail address and the complete postal address.
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated. The address at which the author actually did the work must be retained as the main, affiliation address.

Additional information

- **Abstract.** A single paragraph of 100-250 words should state the purpose of the research, the principal results and major conclusions.
- **Keywords.** Please provide a maximum of six keywords.
- **Abbreviations.** If necessary, define abbreviations that are not standard in this field on the first page of the article.

- **Acknowledgements.** If applicable, collate acknowledgements in a separate section at the end of the article before the references. List here those individuals and/or organisations that provided help, including financial support, during the research.
- **Nomenclature and units.** Follow internationally accepted rules and conventions: use the international system of units (SI) i.e. metre, second, kilogramme etc. or accepted alternatives e.g. day, litre, tonne.
- **Math formulae.** Present simple formulae in the line of normal text where possible. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text). For simple fractions use the solidus (/) instead of a horizontal line. Powers of e are often more conveniently denoted by exp. Give the meaning of all symbols immediately after the equation in which they are first used. Levels of statistical significance which can be mentioned without further explanation are: *P <0.05, **P <0.01 and ***P <0.001.
- **Footnotes.** Footnotes should be used sparingly. Number them consecutively throughout the article, using superscript Arabic numbers. Indicate each footnote in a table with a superscript lowercase letter.

Tables and figures

- **Tables.** Number tables consecutively in accordance with their appearance in the text. Each table should be accompanied by a title and fully descriptive caption. Column headings should be brief but sufficiently explanatory and standard abbreviations of units of measurement should be included between parentheses. Do not use vertical rules to separate columns. Large tables should be avoided. If many data are to be presented, you should consider dividing them over two or more tables. Reversing columns and rows will often reduce the dimensions of a table.
- **Figures.** Graphs, drawings or photographs should be supplied in digital format in monochrome and be of sufficient contrast. Figures prepared with professional software such as Jandel SigmaPlot® (but saved in .doc or compatible format) are preferred. Captions should be included in the main manuscript, not attached to the figure, and should explain all symbols and abbreviations used. The text should include references to all figures. The use of figures from other publications is discouraged but, if used, permission of the author(s) or the copyright owner is necessary.

References

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Citations may be made directly (or parenthetically). Groups of references should be listed first alphabetically, then chronologically. For example: ‘as demonstrated (Allan, 1996a, 1996b, 1999; Allan and Jones, 1995). Kramer *et al.* (2000) have recently shown ...’ Citation of a reference as ‘in press’ implies that the item has been accepted for publication.

In the reference list, references should be arranged first alphabetically and then further sorted chronologically if necessary. They should not be numbered. More than one reference from the same author(s) in the same year must be identified by the letters ‘a’, ‘b’, etc. placed after the year of publication. The title of a non-English publication should be followed by the English translation in square brackets. Journal titles should not be abbreviated. Examples:

- **Reference to a journal publication.** Van der Geer, J., Hanraads, J.A.J. and Lupton, R.A. (2000): The art of writing a scientific article. *Journal of Science Communication* **163**, 51-59.
- **Reference to a book.** Strunk Jr., W. and White, E.B. (1979): *The Elements of Style* (3rd edition). New York: Macmillan.
- **Reference to a chapter in an edited book.** Mettam, G.R. and Adams, L.B. (1999): How to prepare an electronic version of your article, in Jones, B.S and Smith, R.Z. (eds), *Introduction to the Electronic Age*. New York: E-Publishing, 281–304.

For Web references, as a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates etc.), should also be given. Web sources should be included in the reference list alphabetically according to the author’s surname or organisation’s name.

Publication ethics

Studies in Agricultural Economics aims to comply with the standards outlined in the COPE Codes of Conduct for Journal Editors and Publishers. These can be accessed at www.publicationethics.org/resources/code-conduct.

After acceptance

The corresponding author will be provided, at no cost, with a PDF file of the article via e-mail. The PDF file includes a cover sheet with the journal cover image and a disclaimer outlining the terms and conditions of use. *Studies in Agricultural Economics* has no page charges or submission fees.

Complete full-text articles may be published on the AKI website in advance of their publication in a printed issue. These do not yet have volume, issue or page numbers, so cannot be cited in the traditional way. They are therefore given a Digital Object Identifier (DOI), which allows the article to be cited before it appears in printed form.

Studies in Agricultural Economics is accessible online at www.aki.gov.hu/studies and at <http://ageconsearch.umn.edu/handle/44317>. It is listed in EconLit, in the Directory of Open Access Journals (www.doaj.org), as a Commendable Journal in the Cabell’s Directory of Publishing Opportunities in Economics and Finance, and is included in the Citations in Economics database (<http://ideas.repec.org/s/ags/stagec.html>). Papers are abstracted in the CABI Agricultural Economics Database (www.cabi.org) and indexed by Google Scholar.

The printed version of *Studies in Agricultural Economics* is designated by the publisher as the original version of the journal.