

AUSTRALIAN CENTRE FOR CO-OPERATIVE RESEARCH AND DEVELOPMENT

**Agricultural Co-operatives:  
- An Annotated Bibliography**

**Theoretical and Empirical  
Literature and  
Selected Overseas Case Studies**

**Branka Krivokapic-Skoko**  
January 2002

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and  
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## SCOPE AND ORGANIZATION

The purpose of this bibliography is to bring together the literature on both theory and practice of agricultural co-operatives in general, and also to provide an overview of the structure, strategy and evolution of the selected agricultural co-operatives. Apart from presenting classical texts on agricultural co-operatives, the intention is also to identify current sources and recent trends in co-operative research. In terms of the time-frame this bibliography covers the period from the 1960s onwards. The bibliography includes reference to articles appearing in a variety of journals, books, research, extension and policy reports, conference proceedings, theses, and materials available from websites.

A multi-disciplinary approach has been used; sources from agricultural economics, new institutional economics, rural sociology, organisation behaviour, and history, were identified as appropriate sources of reference in this study. The intention was to develop a comprehensive, yet focussed bibliography. Criteria for including sources include empirical, theoretical and policy contribution, as well as relevance, availability, and language (English).

The term 'co-operative' has been spelled with and without hyphenation. This bibliography followed the spelling of this term as done by individual authors.

This bibliography should interest three main audiences: (1) farming and general rural communities, including extension officers and managers of co-operatives, (2) those involved in cooperative development at different levels, as well as policymakers and rural development practitioners, and (3) scholars and postgraduate students researching agricultural co-operation.

The bibliography is organised into nine main topics: (1) theory of agricultural co-operatives, (2) structure and strategy, (3) performance, (4) members' participation and attitudes, (5) New Generation Co-operatives (6) other structural arrangements of agricultural co-operatives, such as business networking, (7) agricultural co-operatives in the 21<sup>st</sup> century, (8) other aspects of agricultural co-operatives, for instance, their role in environmental management, and (9) an overview of selected overseas case studies of agricultural co-operatives.

Finally, the intention is to provide a well-indexed bibliography. The author index includes all authors and editors consulted for this work. The subject index is based on the most relevant aspects of the references to the topic of the bibliography. Some references are included more than once, firstly, within the general subheadings, and once again within the section on case studies. This is done in order to achieve a comprehensive cross-sectional and cross-country overview of agricultural co-operation. The reader should note that the indexes use the bibliographic reference numbers, not page numbers when identifying authors and topic location in the bibliography.

## TABLE OF CONTENTS

Acknowledgments	(i)
Scope and Organization	(ii)
<b>1. Theory of Agricultural Co-operatives</b>	<b>1</b>
<b>2. Structure and Strategy of Agricultural Co-operatives</b>	<b>9</b>
<b>3. Performance of Agricultural Co-operatives</b>	<b>15</b>
<b>4. Members' Participation and Attitudes</b>	<b>20</b>
<b>5. New Generation Co-operatives</b>	<b>25</b>
5.1 General	25
5.2 New Generation Co-operatives - Case Studies	30
5.3 The Impact of New Generation Co-operatives on Rural Communities	31
<b>6. Other Structural Arrangements of Agricultural Co-operation</b>	<b>34</b>
<b>7. Agricultural Co-operatives in the 21st Century</b>	<b>39</b>
<b>8. Other Aspects of Agricultural Co-operatives</b>	<b>42</b>
<b>9. Selected Case Studies of Agricultural Co-operatives</b>	<b>45</b>
9.1 General	45
9.2 Ireland	46
9.3 United Kingdom	48
9.4 Canada	49
9.5 United States of America	51
9.6 Scandinavia/Denmark	53
9.7 The Netherlands	54
Author Index	56
Subject Index	58

## 1. THEORY OF AGRICULTURAL CO-OPERATIVES

1. BARTON, D. G. (1989) What is a Cooperative? In Cobia, D. W. (ed) *Cooperatives in Agriculture*, Prentice Hall, New Jersey, 1-21

Is one of the key references on the subject. Providing an overview of agricultural cooperatives, in terms of definition and principles, and discusses cooperatives as one of the legal forms of business organization and compares it with three other legal forms of doing business in the U.S. (proprietorships, partnerships, and the investment-owned firms). Finally, it outlines the following six concepts in order to enhance an understanding of cooperatives and their place in the economy (1) the primary purpose of cooperatives is to derive economic benefits for its members, (2) cooperatives are usually controlled by members, (3) within cooperatives ownership and control are closely related, (4) benefits are distributed to the patrons-members because of their association with cooperative business, (5) cooperatives are private organisations, and (6) public policy establishes the institutional framework in which co-operative operate.

2. BARTON, D. G. (1989a) Principles. In Cobia, D. W. (ed) *Cooperatives in Agriculture*, Prentice Hall, New Jersey, 21-25

A detailed historical overview of four distinctive classes of cooperative principles (1) Rochdale, (2) traditional (Abrahamsen), (3) proportional, and (4) contemporary. Describes how these principles have evolved over the last one hundred years and focuses on the 1966 principles listed by the International Cooperative Alliance (ICA). This report focuses on the difference between principles, policy and practice as relates to the cooperative business and explains why cooperative principles are important in understanding the nature and role of cooperatives.

3. CONDON, A. M. (1987) *The Methodology and Requirements of a Theory of Modern Cooperative Enterprise* In *Cooperative Theory, New Approaches*, U.S.D.A., ACS Service Report 18, pp. 171-258

The study suggests that economists need to develop a sound theory of cooperative enterprises in order to interpret and predict the behaviour of these complex organisations. The primary objective of this general article is to establish the theoretical foundations for incorporating property rights into a theory of cooperative behaviour and to suggest how much this inclusion will change the orientation of research into cooperative enterprises. It also outlines a specific set of components that all economic theories must contain, and explains in detail the structural and functional roles of property rights in economic theory. Specifically argues that a cooperative enterprise has at least three identifiable major agent groups, each of which may have goals that complement, or conflict both among and within groups. These three agent groups are the members-patrons, the board of directors and management. Discusses separately the role and motivation of these agent groups and addresses the potential implications of members, director, and management structures on the cooperative's performance.

4. COOK, M. L. (1995) The Future of U.S. Agricultural Cooperatives: A Neo-Institutional Approach. *American Journal of Agricultural Economics*, 77, 1153-1159

This study discusses how concepts from the new institutional economics can help us understand the forces that will shape the structure and strategic shifts in the U.S. agricultural cooperatives. A five-stage crude model of cooperative genesis, growth and demise is derived. Focuses on vaguely defined property rights as inherent to cooperative business, and outlines how these can lead to conflicts over residual claims and decision control. Identifies a set of five general problems: (1) free rider problem where property rights are not sufficiently well defined and enforced to ensure that current member-patrons bear the full costs of their actions, and receive the full benefits they create, (2) horizon problem which create disincentives for members to invest into the growth and particularly R & D activities within a cooperative, (3) portfolio problem which prevents members from adjusting their cooperative assets portfolio to match their personal risk preferences, (4) control problems arise because of the insufficient information, and (5) influence costs problem arise in the situation when the diverse objectives among its members can lead to damaging influence activities. The author also derives some notions which are worthy of further amplification, formalisation and testing. Provides a taxonomy of cooperative businesses as a framework for understanding the motivation, mission and competitive strategies of classes of cooperative business. Finally, this article illustrates an inductive approach to theory building as related to the subject of agricultural cooperatives.

- 5 COTTERILL, R. W. (1987) *Agricultural Cooperatives: A Unified Theory of Pricing, Finance, and Investment*. In *Cooperative Theory, New Approaches*, U.S.D.A., ACS Service Report 18, pp. 171-258

A report which explores the possibilities for a unified theory of agricultural cooperation by developing a theory of cooperate price, investment and finance decision under conditions of risk and certainty. Graphically presents a price/investment analysis of cooperative's behaviour assuming the following objectives: (1) to maximise cooperative net margins, (2) to maximise members' welfare (3) to minimise (maximise) price in purchasing (marketing) cooperatives, and (4) to charge market price and refund supply. Focuses on marketing cooperative theory, and by extensive use of graphs and economic modelling analyses the cooperative price-quantity equilibrium, the objectives and behaviour of marketing cooperative in an oligopolistic industry with open and closed membership, as well as with certain and risky investment.

6. CROPP, R., INGALSBE, G. (1989) Structure and Scope of Agricultural Cooperatives. In Cobia, D.W. (ed) *Cooperatives in Agriculture*, Prentice Hall, New Jersey, 35-68

This research provides an insight into agricultural cooperatives in U.S. and presents some statistics of numbers, membership, business volume and farmer use of cooperatives. Classifies agricultural cooperatives into a few basic clusters in terms of (1) capital structure - stock and nonstock cooperatives, (2) geographical area served - local, regional, interregional, national and international cooperatives, (3) organisational structures - centralised, federation and combined cooperatives, and (4) in terms of

functions performed they can be classified into production, supply, marketing, processing and service cooperatives. Also emphasises that cooperatives can use other types of structural arrangements to take advantages of economic opportunities, and these arrangements include subsidiaries, marketing agencies-in-common, joint ventures, holding companies.

7. FULTON, M. (1995) *The Future of Canadian Agricultural Cooperatives: A Property Rights Approach*. *American Journal of Agricultural Economics*, 77, 1144-1152

The uses property rights theory of institutional changes (based on Barzel's analysis) to examine the impacts of structural changes occurring in agriculture - such as the increasing industrialisation of agriculture - as well as changes in the society's values such as increased individualism. The article provides some views about the future of agricultural cooperatives in Canada, taking more pessimist look at the future of cooperatives, explaining it by three groups of factors: (1) deregulated environment can provide both additional opportunities and disadvantages for cooperatives, (2) the support by other existing cooperatives, and (3) the ramification of the increased opportunity costs that may lead to less commitment to the cooperatives and less cooperative developing. Generally, this analysis yields testable hypotheses that are of practical as well as theoretical importance.

8. GROVES, F. (1985) *What is Cooperation? The Philosophy of Cooperation and It's Relationship to Cooperative Structure and Operations*. UCC Occasional Paper, No.6, University of Wisconsin Center for Cooperatives

A review article on definitions and principles of cooperation, and their applications. Outlines unique features of cooperative management and compares them to non-cooperative businesses. Also offers some insights into specific problems/issues cooperatives may face in the future: (1) necessity to maintain cooperative principles, (2) problems of member control and diversification of membership, (3) balance between economic and social purposes of cooperatives, (4) the need to further emphasise the difference between cooperative and non-cooperative sector, (5) improved relations with non-agricultural cooperatives and (6) strengthening relations with foreign cooperatives, and (7) the need to maintain a favourable public image.

9. HELM, F. C. (1968) *The Economics of Co-operative Enterprise*. Chapter 3 Agricultural Co-operation, University of London Press Ltd., 30-124

This textbook provides a comprehensive history of agricultural co-operation, and includes sections on definition, the 1966 ICA principles, motives and factors leading to the establishment of co-operatives. Also contains a detailed description of the types of agricultural co-operatives (marketing, supply, credit, insurance, the co-operative use of machinery) supported it by examples from developing countries.

10. HELMBERGER, P. (1964) Cooperative Enterprise as a Structural Dimension of Farm Markets. *Journal of Farm Economics*. 46 (3), 603-617

This is an important study on the economic behaviour of cooperatives, specifically dairy-marketing cooperatives. It outlines the cooperative-managed firm (CMF) and argues that the objective function of the cooperative firm is different to the price-taking profit-maximization firm. The CMF seeks to maximise the price paid per unit of raw material supplied by its farmer-members. Members consider the cooperative's economic return to be the market price plus anticipated patronage dividend per unit, and whenever there is a higher economic return through the cooperative, producers will switch to the cooperative. This theoretical analysis of cooperative marketing discusses behaviour of a cooperative firm under alternative sets of assumption regarding market structure. These sets of alternatives assume that in a market with atomistic structures and no barriers to entry cooperatives may cause some departures from perfectly competitive equilibrium in the short run, but in the long run cooperatives will achieve price equilibrium.

11. HELMBERGER, P. (1966) Future Roles for Agricultural Cooperatives. *Journal of Farm Economics*, 48 (5), 1427-1435

A review article that elaborates on the major factors determining past trends and future prospects of agricultural cooperation. Discusses the effectiveness of cooperatives, as one form of business organisation, particularly in the context of imperfect knowledge/information and uncertainty - as two sources of market failure. In elaborating the success factors of cooperatives the author discusses separately factors internal and external to the cooperative. Internal factors that are likely to have an important influence on the future of farmer cooperation are the emergence of special-interest groups that may undertake cooperatives, insufficient rewards for the more entrepreneurial members, and the problem in raising large sums of capital. External factors which affect cooperative growth are (a) the legal environment, (b) technological, and (c) institutional factors.

12. HOYT, A. (1996) *And Then There Were Seven: Cooperative Principles Updated*. Available: Internet <http://www.wisc.edu/uwcc/staff/hoyt/princart.html>

An historical review of ICA (the International Cooperative Alliance) showing how the cooperative principles were changed in 1937, 1966 and 1995. Focusing on seven principles adopted in 1995 and how they are intended to shape the structure and role of cooperatives in the 21st century.

13. LE VAY, C. (1983) *Agricultural Co-operative Theory: A Review. Journal of Agricultural Economics*.34, 1-44

This seminal article which tries to assemble the theoretical literature on agricultural co-operation, stresses the need to formulate some workable paradigms about the behaviour of agricultural co-operatives and outlines some ideas/concepts that might complement a general theory of co-operatives. The review starts by explaining what constitutes an agricultural co-operative and how it is to be defined as an economic organisation. The main emphasis is placed on price output determination for agricultural co-operatives, to establish in what respect they are likely to differ from conventional firms, and to form a basis on which to argue whether co-operatives should be promoted by governments and, if so, upon what terms. Elaborates co-operatives' objectives in the case of marketing and supply co-operatives. Also considers the issues such as the life cycle of the agricultural co-operative organisations, and potential weaknesses of co-operative organisation.

14. McBRIDE, G. (1986) *Agricultural Cooperatives: Their Why and Their How*. Westport, Conn.

The author discusses the Rochdale principles, and practice of cooperation from the perspective of a relatively modern agricultural sector, emphasising that some of the principles are obviously open to question. Also provides some conceptualisation of cooperatives and compares them to the investor-owned firm (IOF).

15. MURRAY, G. C. (1983) *Towards an Agricultural Co-operative Classification. Journal of Agricultural Economics*, 34(2), 151-161

An article that presents a system for classifying agricultural co-operatives based on their financial structure and the means by which co-operative financing is pursued. Identifies two basic types of co-operatives (1) capital accumulative co-operatives, and (2) capital specific co-operatives. The latter type can be sub-divided into capital extensive and capital intensive co-operatives. The archetypes of capital accumulative co-operatives are regional multipurpose co-operatives, while capital specific (extensive) co-operatives are typically buying groups and vegetable marketing co-operatives. Potato and onion storage or marketing co-operatives are capital intensive co-operatives. Also details a number of organisational and operational differences (such as objectives, management structure, pricing policy) between these co-operative types and suggests that these can have important implications for government policy towards co-operatives in general.

16. RHODES V. J. (1983) The Large Agricultural Cooperative as a Competitor. *American Journal of Agricultural Economics*. 65, 1090-1095

This research elaborates on some of the economic theories relevant to agricultural cooperatives and asks the question of what farmers seek from cooperatives. Cooperatives are treated in this paper as a special type of firm that tends to maximise earning profits within a set of constraints, which are unique to cooperatives. The authors outline four groups of advantages of being within a farming cooperative: (1) a net economic returns to members, (2) assurance for the markets, (3) channelled leaderships, and (4) sustained and expanded demand for the commodities. Emanating from that, in the second part of this paper, the author discusses whether a cooperative is likely to be superior to an IOF on these four grounds. The following key differences between IOF and cooperatives are outlined: (1) the disposition of residual income, (2) the constraints on cooperative objective to serve a particular group of producers, and (3) a preference of producers in dealing with 'their' monopoly instead of someone else's.

17. SCHRADER, L. F. (1989) Economic Justification. In Cobia, D.W. (ed) *Cooperatives in Agriculture*, Prentice Hall, New Jersey, 121-135

This study relates the establishment of cooperatives to some economic concepts such as market failure, and states that each of the sources of market failure provides an incentive for farmers to integrate. Outlines examples of specific situations in which cooperative action may benefit farmers such as (1) benefits arising from economy of size, (2) possibility of capturing profits from another level, (3) provision of services that otherwise would not be available, (4) the assurance of suppliers and markets, and (5) general benefit arising from risk reduction. Finally cooperatives may be organised to (6) acquire and exploit market power for the benefit of their members.

18. SEXTON, R. J. (1986) The Formation of Cooperatives: A Game-Theoretic Approach with Implications for Cooperative Finance, Decision Making, and Stability. *American Journal of Agricultural Economics*. 68, 214-225

An examination of individuals' incentives leading to the formation of cooperatives and development of a model for a purchasing cooperative. The model is based on a game-theory approach, using a person's game with the core as a solution concept. Core existence is examined for both single and multiple-cooperative configurations, while cooperative finance methods are examined following the core-compatible allocation rule. The paper provides insight into a cooperative's equilibrium output, stability, decision-making, financing methods, and a choice of open or restricted membership.

19. SHAFFER, J. D. (1987) Thinking About Farmers' Cooperatives, Contracts and Economic Coordination. In *Cooperative Theory, New Approaches*, U.S.D.A., ACS Service Report 18, pp. 61-86

A theoretical piece of work which explores possible roles of farmers' cooperatives in dealing with the fundamental problems of coordinating economic activity within a high level of uncertainty. Attempts to identify potential functions or roles of cooperatives, responses they can make to characteristics of markets, and transactions involving problems in coordination. Outlines the following twelve characteristics of markets that seem to be particularly important in influencing the effectiveness of coordination, and makes brief comments on how cooperatives respond to these characteristics. (1) the time factor, in terms of the length of the production planning, (2) the flexibility of prices, (3) an existence of a thin market which is characterised by a small number of transactions, (4) transparency, (5) specification, (6) contingencies and settlement, (7) personal relationship and trust, (8) frequency of transactions, (9) asset specificity, (10) externalities, (11) structure, (12) elasticity. It is considered that cooperatives generally may be effective in micro-coordination where, for instance, supply cooperatives could reduce inventory and delivery costs and mistakes in ordering. Cooperatives also have a significant potential role in coordinating the total supply of a commodity with total demand at prices reflecting costs of production.

20. STAATZ, J. M. (1984) *A Theoretical Perspective on the Behaviour of Farmers' Cooperatives*. Ph.D. Thesis, Department of Agricultural Economics Michigan State University

This thesis develops a game-theoretical analysis of the allocation of benefits and costs within farmer cooperatives, and derives some theoretical postulates which permit preliminary empirical testing. This provides an extensive review of theoretical discussions on what farmer cooperatives are, why they arise, why they adopt particular structures and practices, and what consequences their actions have for both members and non-members. As a framework for discussing these issues this thesis uses fruit and vegetable processing cooperatives and carries out an in-depth analysis of decision-making within these cooperatives.

21. STAATZ, J. M. (1987) *The Structural Characteristics of Farmer Cooperatives and Their Behavioural Consequences* In *Cooperative Theory, New Approaches*, USDA, ACS Service Report 18, pp. 33-60

The report outlines the structural characteristics of farmer cooperatives, and based on these characteristics develops a hypothesis about how the behaviour of farmer cooperatives is likely to differ from that of investor-owned firms (IOFs). The patron-stockholder identity, the distribution of ownership benefits through patronage and the democratic governance of farmer cooperatives can lead farmer cooperatives to behave differently from IOFs. Some of the issues emphasised are that the limited ability of cooperatives and cooperative stockholders to diversify their investment may lead cooperative decision makers to be more risk-averse than decision makers in IOFs.

22. STAATZ, J. M. (1987a) *Farmers' Incentives to Take Collective Action via Cooperatives: A Transaction Cost Approach*. In *Cooperative Theory, New Approaches*, USDA, ACS Service Report 18, pp. 87-107

This report uses concepts from transaction costs economics to examine (1) under what conditions farmers benefit from collective actions, and (2) under what conditions that collective action is likely to take the form of a farmer-owned cooperative. Argues that many of the potential benefits farmer cooperatives offer their members could be derived from the fixity of assets, and suggests that farmer cooperatives are more likely to arise and convey greater benefits to their members where assets on both sides of the market are highly specialised, and product and factor markets are segmented. It also suggests that cooperatives will tend to be more prominent in declining markets than in expanding markets, and cooperative firms can also offer better advantages than the investment owned firms (IOFs) during the early stage of agricultural specialisation. Cooperative firms have more of an incentive than an IOF to invest in training farmers in new production techniques, and farmers-members of cooperatives are also able to provide themselves with goods and services that no IOF has an incentive to produce. Cooperatives may offer farmers certain advantages in dealing with risk, primarily through the firm's ability to practice contingency pricing via patronage refunds, and to offer members some degree of revenue insurance through pooling.

23. TORGERSON, R. E., REYNOLDS, B. J., GRAY, T. W. (1997) *Evolution of Cooperative Thought, Theory and Purpose*. University of Wisconsin Center for Cooperatives. Available: Internet <http://www.wisc.edu/uwcc/info/torg.html>

A study that reviews the theories of cooperatives and their evolution as related to agricultural marketing cooperatives. Includes an overview of the ideas/concepts developed by Emilianoff (on the cooperative as a form of vertical integration), Rabotaka and Phillips (on the importance of a principal-agent relationship in understanding cooperatives), and Hellmberger (applying a modified theory of the firm to agricultural cooperative theory). A particular relevance is given to the recent development in agricultural cooperative theory, such as property rights, transaction cost economics, group public goods theory and game - theory approach in modelling the structure of cooperatives.

24. WOLF, C.A., HAMM, L. G. (1998) *The Role of Cooperatives in Milk Marketing*. 1998 American Agricultural Economics Association, Annual Meeting Selected Paper

A conceptual paper which considers the important role of cooperatives in dairy marketing and in fact discusses the potential of dairy cooperatives to operate without government intervention. Concentrates on the interdependence between dairy cooperatives and marketing orders and derives some tentative hypotheses about what would happen to the co-operatives in the absence of marketing orders. Concluding that within that scenario it is likely that cooperatives will be unable to maintain services without a substantial increase in costs.

## 2. STRUCTURE AND STRATEGY OF AGRICULTURAL CO-OPERATIVES

25. BOLAND, M., LUSK, J., BARTON, D. G. (1999) *Producer Investment Factors in Food-Processing Cooperatives*. Paper presented at NCR-194 Research on Cooperative Meeting, in Kansas City November 14/15, 1999.  
Available Internet: <http://www.agecon.ksu.edu/accc/ncr194/publications.htm>

This paper discusses the emergence of food-processing cooperatives in the Midwest United States. A survey of 64 recently formed cooperatives is carried out, and data obtained are analysed using specified econometric models. It is postulated that the ability of a cooperative to store commodities and processed products for any length of time and the size of the investment affect the proportion of production that producers invest in the cooperative. The results suggest that (1) as the number of shares sold by the cooperatives increases, the average percentage of producers' production invested in the cooperative decreases, (2) producers marketing a perishable commodity would contribute significantly more of their produce to the cooperative than producers marketing storable products, and (3) the fact that cooperatives process a storable or perishable commodity also significantly affects the number of producers involved in the cooperatives. Authors emphasise that as producers with perishable commodities get involved in food-processing cooperatives to improve market access, and when opportunities to sell the products outside the cooperative are limited or nonexistent, producers are likely to commit a larger percentage of their output to the cooperative. Accordingly, it becomes important for the producers to acquire knowledge about risks and potential returns for the commodity they are thinking of marketing through a food-processing cooperative. The relative perishability of a commodity has a significant impact on the percentage of production invested by individual producers. Finally, a cooperative that will process and market a perishable product is likely to have fewer members.

26. GUNNARSON, P. (1999) *Organisational Models for Agricultural Co-operatives: A Comparative Analysis of the Irish Dairy Industry*. Thesis, M.Sc. in Agricultural Economics, Department of Economics, Swedish University of Agricultural Sciences, Uppsala

This analysis shows the effects that different financial solutions may have on the organisational models of co-operatives, using Irish dairy co-operatives as case studies. Four traditional dairy co-operatives which were transformed into Public Limited Companies (PLCs) are analysed. The membership, marketing and management in these co-operatives are examined in detail using agency theory and property rights theory. This Masters thesis is particularly useful in terms of presenting different definitions of co-operatives, explaining why co-operatives arise using a neo-classical approach and transaction cost theory, and how some properties of the agency theory may be applied to the co-operative structure. One of the major contributions is an attempt to develop a typology of co-operative organisational models, where members' involvement in their investor and patron role co-operatives may be clustered in (1) traditional, (2) entrepreneurial, (3) degenerated and (4) ex co-operatives.

27. HIND, A. M. (1997) *The Changing Values of the Cooperative and Its Business Focus. American Journal of Agricultural Economics. 79, 1077-1082*

An article that examines the range of objectives that cooperative businesses may promote, and assesses how they change over time. The analysis is based on the semantic analysis of annual reports of seven agricultural cooperatives in the UK. The findings generally indicate that cooperatives become more corporate oriented as they develop through time. However, the positive relations between the age of the business and corporate attitude have not been confirmed in all cases. Other factors such as personalities and objectives of dominant stakeholders and balance between groups are found to be important in shaping a business focus of the cooperatives.

28. KYRIAKOPOULOS, K, van DIJK, G. (1997) *Innovative Financing for Entrepreneurial and Market-oriented Agricultural Cooperatives*. Paper presented on the CEPFAR/COGECA seminar on “Adapting Farmers’ Cooperatives to Changes of Policies and Market Powers in the EU”, held on 22-25 October 1997, Sanga-Saby, Sweden

This paper considers some financial tools which are used by cooperatives in the EU countries in an effort to cope with increasing needs in investment. These innovative financial instruments include: (1) bonds - using non-member equity capital for issuing bonds, which could offer fixed yield, an example is *Campina Melkunie* which issued bonds to both members and external investors in order to acquire its Belgian subsidiary *Comelco*, (2) proportional tradeable shares - to establish a secondary market for membership shares allowing for trade of shares among members (NGCs for instance), (3) external participation shares - refers to non-members equity capital as used by cooperatives in Spain, Italy and especially in France, and (4) public quoted shares, where stock quoted cooperatives, mainly in Ireland, have released their control rights by permitting the majority of their equity to be in the hands of non-members. The adoption of new financial tools would help the cooperative to cope with the new conditions prevailing in agribusiness. However, in order to become more entrepreneurial cooperatives should (1) set a clear objective, (2) move from equal to equitable treatment of membership, which would recognise the different needs and contribution of various groups of patrons providing them with incentives to remain within the cooperative, and (3) pursue a flexible market-oriented structure, with further collaboration of cooperatives.

29. KYRIAKOPOULOS, K., van BEKKUM, O-F. (1999) *Market Orientation of European Agricultural Cooperatives: Strategic and Structural Issues*. Paper presented to the 9th Congress of the European Association of Agricultural Economists “ *European Agriculture Facing the 21<sup>st</sup> Century in a Global Context*”, held in Warsaw, Poland, 24-28 August 1999

A paper which considers some constraints that key organisational arrangements of cooperatives impose on the implementation of market-oriented strategy. The following six main points are emphasised as essential for cooperatives as they proceed with formulating market-oriented strategies: (1) a move from equal to equitable treatment of memberships, where equitable treatment recognises the different preference and

contribution of various groups of patrons providing them with incentives to remain within the cooperative, (2) strengthening individual property rights- one of the actions can be establishing a secondary market for equity capital, (3) coordination of raw material supply, (4) procurement diversification, (5) PLC subsidiaries for marketing and international operations, (6) decision making tasks allocation.

30. LANG, M., CASTANIAS, R., COOK, M. (2001) *Ownership, Financial Instruments, and Control of U.S. and Selected European Cooperatives*. Working Paper Series No. 11, University of California Center for Cooperatives

A detailed review of organisational and legal structures, governance, long-term financing, and institutional factors affecting European agricultural cooperatives, as well as discussing traditional stock (farm supply, grain-marketing and dairy cooperatives) and non-stock cooperatives (mainly California's marketing cooperatives) in the U.S., and New Generation Cooperatives. Attempts to identify and compare the principal source of long-term capital for agricultural cooperatives in both regions, and trends associated with alternative approaches to cooperative finance. In general, the paper offers rich data on a variety of cooperative issues, and is specially designed to help accounting professionals to understand how cooperatives are controlled and financed in the EU.

31. McLAUGHLIN, P. (1996) Resource Mobilisation and Density Dependence in Cooperative Purchasing Associations in Saskatchewan, Canada. *Rural Sociology*, 61 (2), 326-348

This article identifies the conditions under which Saskatchewan farmers are willing and able to establish consumer cooperatives as a means to lower the costs of agricultural inputs and consumer goods. The estimates of parameters for variables measuring the costs incurred and the price received by farmers indicate that the rate of formation of cooperatives increase during periods when the gap between costs and price widens, and decrease when it narrows. The rate of cooperative foundation increases during periods when farmers' lobbying organisations and marketing cooperatives, and local and regional government, increase and coordinate their activities to support the cooperative movement. These relations are proved using the evidence from Saskatchewan consumer movements within farmers during the 1914-1988 period.

32. Rural Industries Research and Development Corporation (2001) *International Trends in the Structure of Agricultural Cooperatives*. RIRCD Publication No.01/06

This paper summarises the findings from a tour of agricultural cooperatives in the U.S. and Europe. Providing rich material from ten case studies of agricultural cooperatives<sup>1</sup> documenting their growth strategies, capital management and governance and control. In terms of the most important determinates of long-term sustainability of cooperatives this report emphasises (1) the treatment of equity capital, (2) that fact that cooperatives need to have a well-defined growth strategy, (3) the need or training board members in the relevant commercial skills, as well as some forms of external scrutiny of the business.

33. TRECHTER, D. D. (1996) Impact of Diversification on Agricultural Cooperatives in Wisconsin. *Agribusiness*, 12 (4), 385-394

This research examines factors associated with a decision to diversify agricultural cooperatives as a result of external and internal pressures. The empirical analysis is based on a survey of 114 Wisconsin's cooperatives, and logit regression is used to analyse the factors associate with diversification. Results suggest that cooperatives that are larger and involved in input supply are more likely to diversify. In addition, the impact of diversification on the key performance measures for the cooperatives is examined, and found that diversification has no statistical association with key performance areas (profitability, patronage, refunds, or equity redemption). However, diversification does appear to be an important factor in determining membership size, with diversified cooperatives having larger membership.

34. USDA (1997) *Voting and Representation Systems in Agricultural Cooperatives*. Rural Business-Cooperative Service, RBS Research Report 156

A report that documents the extent of using one-member, one-vote principle, and proportional voting system in the U.S. agricultural cooperatives by type and function, and membership size. Examines the two interrelated aspects of cooperative representation: (1) determining voting power of individual members, (2) determining how directors are to be elected to cooperative boards. About 1,400 farmer cooperatives, which represent 74 percent of the cooperatives in the U.S. in 1995, were asked to provide information on their voting/representation system. The survey of the cooperatives show that 93 percent use the one-member, one-vote method and this method is used in the highest percentage by cooperatives in the Great Plains. Proportion voting was used mainly by fruit and vegetable cooperatives operating in California. Electing directors by large voting system (when a board of directors is elected at an annual meeting from, and by, the entire membership, regardless of districts of geographical location) predominated. The reports also presents data by the region, type of cooperatives, membership size and by organisational structure, ie. direct membership, federated, and mixed membership cooperatives.

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<sup>1</sup> This and other references which contain case studies of agricultural co-operatives also included in the section 9.

35. USDA (1997) *Marketing Coordination in Agricultural Cooperatives*. Rural Business-Cooperative Service, RBS Research Report 159

An article that focuses on the use of marketing arrangements by cooperatives and their producer members. The 1992 survey of 522 marketing cooperatives with total sales of 15 million dollars or more provided detailed information about these arrangements. As potential reasons for initiating marketing arrangements the study indicates: (1) physical characteristics and production patterns of agricultural products, (2) activities performed by cooperatives, (3) marketing commitments extending from cooperatives' operations towards the end user of agricultural products. Forty-four percent of the cooperatives surveyed had market agreements with their members, and of those, 32 percent used by-law provisions (that required members to market with their cooperatives) 55 percent used only marketing agreement contracts (signed with members) and 13 percent used both. It was also found out that the type of product marketed and related marketing services have a strong influence on the level of agreements. Grain cooperatives tend not to use marketing agreements unless processing or production functions were incorporated in a cooperative's activities. More than 75 percent of dairy, fruit, and vegetable cooperatives had marketing agreements with their members. Except for dairy, cooperatives with marketing agreements had a greater proportionate investment in assets especially fixed assets, than other cooperatives and were more likely to use long-term sales contracts with their customers.

36. USDA (1993) *Livestock, Wool, Poultry, and Meat Cooperatives: Function, Marketing, and Services*. Agricultural Cooperative Service, ACS Research Report No. 118

This report provides a review of current functions and marketing methods used by livestock, wool, poultry and meat cooperatives. Data from 201 cooperatives were analysed using commodity groups and divisions within commodity groups. A detailed stratification of cooperatives is done based on sales volume and cooperative functions. This analysis offers a huge amount of information about functions, services offered by, and marketing techniques used by the cooperative surveyed. This report could be used by both established and potential cooperatives for performance evaluation or planning.

37. USDA (1993) *Equity Redemption and Member Equity Allocation Practices of Agricultural Cooperatives*. Agricultural Cooperative Service, ACS Research Report No. 124, USDA

Based on the 1991 survey this report provides an in-depth analysis of equity redemption practice of agricultural cooperatives. The report also evaluates the importance of cooperative principles in carrying out equity redemption programs and discusses the frequency of use and characteristics of systematic and special equity redemption programs. The survey shows that eighty-six percent of agricultural cooperatives reported that their equity was subject to redemption for 1991, and around ninety percent of them had some type of systematic (revolving fund plan, base capital plan, and percent-of-all-equities) or special redemption program. In addition, larger cooperatives (with more than \$10 million in total assets) reported much greater use of systematic programs than smaller ones. Grain and farm supply cooperatives were heavily dependent on special programs to redeem equity. The report also outlines three

following issues in relation to equity redemption performance: (1) financial strength did not necessarily indicate superior equity redemption performance, (2) smaller cooperatives were more reluctant to redeem members' equity regardless of financial condition, and (3) grain and farm supply cooperatives demonstrate the poorest equity redemption performance.

38. WELLS, M. (1982) Political Mediation and Agricultural Cooperation: Strawberry Farms in California. *Economic Development and Cultural Change*. 30 (2), 413-433

This article considers agricultural production cooperatives a mechanism for rural development and examines both internal and external sources of tension in cooperatives. By using case study material from two production cooperatives in the Californian strawberry industry it is argued that the value and individual characteristics of members may be insufficient to explain the generation and management of conflicts in cooperatives. Alternative explanation focuses on the interplay between internal organisational dynamics and external factors, such as the relations between government hierarchies and their local-level development projects. This anthropological study also emphasises the need for mediation or agencies which have the information, communication skills, and capability to facilitate the cooperative development. Generally, it is argued that the studies of cooperatives should move from the analysis of the internal characteristics of membership, towards examination of the structural linkage between cooperatives and the social systems.

### 3. PERFORMANCE OF AGRICULTURAL CO-OPERATIVES

39. Australian Agricultural Council. Working Party on Agricultural Co-operatives (1988) *Agricultural Co-operatives in Australia*. SCA Technical Report Series, Canberra

A study that identifies the following impediments to the successful operation of co-operatives: (1) inherent individualism, (2) lack of producer commitment (3) weakness in management, (4) lack of communication with members, (5) difficulties in financing, (6) failure to inform members, (7) neglect of co-operative principles, (8) acceptance of unethical practices, (9) weakness in co-operative legislation, and (10) opposition to co-operatives from non-cooperative firms. The introductory part of this report offers a comprehensive review of definitions, principles, and some basic theoretical conceptualisations of agricultural co-operatives. Reasons for forming co-operatives are discussed separately for marketing, input supply, services, machinery and production co-operatives.

40. BARTON, D. G., SCHROEDER, T. C., FEATHERSTONE, A. M. (1993) Evaluating the Feasibility of Local Cooperative Consolidations: A Case Study. *Agribusiness*, 9 (3), 281-294

This study develops a set of financial performance measures relative to the cooperative size and compares financial performance of firms with statistically estimated performances of cooperatives of similar size. The intention is also to derive tools for the identification of cooperatives with the greatest potential to improve performances from merging. The suggested approach is applied to two pilot groups of 114 Kansas cooperatives. The empirical analysis provides data on the size and financial performances of cooperatives (assets value, the rate of return to assets, the gross margin ratio, the productivity ratio, the variable cost ratio and the current ratio), while regression analysis is used to estimate these relations. It is found that within the cooperatives studied, average financial performances varied by the size of the cooperative, and accordingly small sized cooperatives that are not operating very efficiently relatively to firms of similar size are more likely to significantly benefit from merging.

41. BOYLE, G. E.(1998) *A Duality Approach to Testing the Economic Behaviour of Dairy-Marketing Cooperatives: The Case of Ireland*. Department of Economics, National University of Ireland.

This research discusses whether cooperatives are fundamentally different in their economic behaviour to profit-maximisation firms, and analyses, in the case of Irish dairy cooperatives, the economic response of dairy cooperatives to changes in exogenous variables, and in particular the imposition of the quota system on the dairy processing sector in 1984. Considers the theory of the cooperative managed firms (CMF) and how it differs from the profit – maximisation firms in: (1) having as its objective the maximisation of the price paid to its members for the raw material they supply and (2) being obliged to process all raw material supplied by its members. A formal test as to whether the Irish dairy – processing cooperatives (over the period

1961-1987) could be characterised as profit maximiser is implemented. The results suggest that the hypothesis that dairy-marketing cooperatives behave as virtual profit maximisers could not be rejected. It was found that many dairy marketing cooperatives diversified their activities in responding to the introduction of the dairy quota in 1984, and that action was consistent with profit-maximisation being a strong behavioural motivation. It should be added here, that many cooperatives did not simply diversify out of milk processing into related agricultural activities, but they actually altered their ownership structure by becoming PLCs, while still retaining a majority of dairy farmers' ownership.

42. COTTERILL, R. W (1997) The Performance of Agricultural Marketing Cooperatives in Differentiated Product Markets. In Caswell, J.A., Cotterill, R.W. *Strategy and Policy in the Food System: Emerging Issues*. Department of Agricultural and Resource Economics, University of Connecticut, and Department of Resource Economics, University of Massachusetts Amherst., 53-63

A general paper on agricultural marketing cooperatives in differentiated product markets, focuses upon the theoretical basis for the competitive yardstick effect by agricultural marketing cooperatives. It develops a formal model of cooperatives pricing in differentiated markets, that are characterised by monopolistic competition or oligopoly. By using the economic models it explains the role of the competitive yardstick effect in agricultural cooperatives which cannot control supply in oligopsonistic food processing markets, and the effect of the control of the supply of cooperative members on brand price.

43. FULTON, M. et al. (1995) Cooperative Growth: Is it Constrained? *Agribusiness*, 11 (3), 245-362

This article looks at the issue of cooperative growth from both empirical and theoretical perspective. Outlines recent structural changes in the agricultural cooperative sector and identifies why the issue of equity and growth have become especially important. The issue of growth is examined by integrating the literature on investor-oriented firm growth with the literature of cooperative growth. Using total assets as the measure of cooperative size, the report presents long-term (over the past 40-60 years), time-series data from seven of the largest regional agricultural cooperatives in Canada and the United States. The empirical analysis suggests that it is not possible to reject the hypothesis that a cooperative's long-term growth rate is independent of its size. The growth rate for the cooperatives included in the sample has been low, approaching zero. One of the explanations for these results is that equity redemption in cooperatives has limited the ability of cooperatives to grow. The long-run growth of the cooperative can be also reduced by (1) the rate of taxation, (2) the rate of return on capital, and (3) the rate of earnings retentions, where the two latter variables are choice variables for the cooperative.

44. HIND, A. M. (1994) Cooperatives-Under Performers by Nature? An Exploratory Analysis of Cooperative and Non-cooperative Companies in the Agribusiness Sector. *Journal of Agricultural Economics*. 45 (2), 213-219

A study that attempts to determine whether agricultural cooperatives in the UK are more likely to under perform when compared with non-cooperative firms in the same industry. Research was based on 31 agricultural cooperatives and 82 non-cooperative businesses, regression analysis was used to determine if there were significant relationships between indicators of performance and business forms. The results indicate that on the basis of profitability, capital gain and liquidity there are no significant differences between these two groups. Regarding business operational efficiency indicators of sales/working capital ratios, and creditor ratios, there were no significant differences. However, the indicators of stock turnover and debtor ratios were significantly higher for cooperatives. Generally, the results suggest that cooperatives do not perform differently from non-cooperative companies in the agricultural industry.

45. KATZ, J. P. (1997) Managerial Behaviour and Strategy Choices in Agribusiness Cooperatives. *Agribusiness*, 13 (5), 483-495

This research indicates that the factors affecting firm productivity for agribusiness cooperatives and IOFs differ. It is effectively displayed using path diagrams, showing that cooperatives tend to maintain a focused corporate strategy to ensure that the firm continues to serve the market linkage need of its members-patrons. Business strategies are distinctly risk averse, financially conservative, reliant on board involvement in managerial decisions, and hesitant to use technology to positively affect performances. Primary data for this study were collected over five years (1988-1992) from 151 cooperatives, using a direct mail survey of firms listed in the directory of farm cooperatives.

46. KNUTSON, R. D. (1966) Cooperatives and the Competitive Ideal. *Journal of Farm Economics* 48 (3), 111-121

This article attempts to analyse and integrate theoretical and empirical literature related to the effects of cooperatives on market performances, focusing on the factors which may prevent cooperatives from achieving competitive market results. The potential results of the cooperatives that act in an imperfect competitive market, may be described as: (1) a larger output, (2) higher producers prices, (3) least cost level of output, and (4) the elimination of monopsony profits. In conclusion, the author argues that (1) cooperative methods of finance, (2) the existence of cooperatives which restrict memberships, and (3) the apparent inability of cooperatives to grow as rapidly as other forms of business organisations in industries where economies of scale are important, raise questions regarding the extent to which cooperatives could actually improve market performance.

47. LERMAN, Z., PARLIAMENT, C. (1990) Comparative Performance of Cooperatives and Investor-Owned Firms in US Food Industries. *Agribusiness*, 6 (6) 527-540

This article analyses the comparative financial performance of cooperatives and investor-owned firms (IOF) in the fruit and vegetable processing and the dairy industry, for the period 1976-1987. Analysis found that cooperatives in both industries perform as well as or better than the comparable IOFs by profitability, leverage, and interest coverage measures. No clear evidence is found of the hypothesised over investment in fixed assets or distinct moral hazard behaviour in cooperatives.

48. MAUGET, R., DECLKERCK, F. (1998) Structures, Strategies, and Performance of EC Agricultural Cooperatives. *Agribusiness*, 12 (3), 265-275

This research pulled together information on the management, organisation and method of financing of the most important agricultural cooperatives of the European Community, to determine the key factors of success in terms of structures and strategies. A sample of 27 major EC agricultural cooperatives is studied through individual interviews and the analysis of annual reports. Economic performances of the cooperatives are evaluated through several ratios, especially the ratio 'value-added over turnover' while financial characteristics are evaluated through their capital structure and ability to raise capital from farmers and bank, and/or from equity and debt markets. Finally, strengths and weakness of EC cooperatives are compared by countries and by type of business. The main results show that in general specialised cooperatives did not perform better than multi-purpose ones. Specialised cooperatives were most successful in Denmark, while multi-purpose ones perform best in Ireland. Irish cooperatives, such as *Kerry*, *Avonmore* and *Dairygold*s, and Danish hog cooperatives, like *Danish Crown*, had the highest performances.

49. PETERSON, H. C., ANDERSON, B. L. (1996) Cooperative Strategy: Theory and Practice. *Agribusiness*, 12 (4), 371-384

This article provides twelve strategies through which cooperatives could produce differential benefits for members. Six strategies would primarily generate additional returns for the members and these return strategies are: (1) the competitive yardstick strategy, (2) countervailing power strategy, to improve cost efficiency (3) the deal cost strategy, (4) the agency cost strategy, (5) member demand strategy, (6) consumer demand strategy. Risk-management strategies include: (7) a pooling strategy, (8) a saving bank strategy, (9) to maintain the market strategy, and indirect strategies such as (10) the conservative investment strategy, (11) diversification strategy, and (12) a selective vertical integration. These strategies are then empirically assessed using evidence obtained from in-depth interviews with CEOs of 21 north eastern US cooperatives. The purpose of the empirical research is to determine the relative use of these cooperative strategies by established cooperatives. In conclusion, almost all of the cooperatives in the sample follow both returns and risk management strategies. The research also reveals that cooperative information systems appear inadequate to support strategic decision-making.

50. REYNOLDS, B. J. (2000) *Cooperative Principles as Constraints for Public Goods Production*. Paper presented at the NCR-194 Annual Meeting, December 12-13, 2000, Las Vegas, NV

A theoretical discussion on the role of cooperatives in discovering and generating public goods, showing public goods as relevant to cooperatives, noting that the emergence and adoption of standards and procedures in an industry may be considered as a type of public good. Indicating that the role of cooperatives in applying, and developing grades and standards, has received far less attention than their role in the traditional policy issues of price stabilisation and protection from monopolistic price discrimination. This paper also contributes to the on-going discussions of determining how cooperative principles and practices can be adapted or reformed for the benefits of members. The use of more completely defined property rights is being proposed to ameliorate many of the negative effects of constraints inherent to traditional cooperative principles.

51. WARREN, R. D., MULFORD, C. L., YETLEY, M. J. (1976) Analysis of Cooperative Organisational Effectiveness. *Rural Sociology*, 41 (3), 330-353

Using Etzioni's theoretical propositions about organisational effectiveness as a basis, these authors develop a causal model including variables affecting organizational effectiveness, and empirically assess it using data on grain cooperatives in Iowa. Organisational effectiveness is viewed as a sum of three general criteria: (1) organisational productivity, (2) organisational flexibility in the form of successful adjustment to both internal organizational changes and externally induced changes, and (3) absence of intra-organisational tension and conflicts between organization and subgroups. The exploratory variables included in the models are: (1) socialisation, (2) communication, (3) selectivity, (4) scope, (5) pervasiveness, (6) salience and (7) tension. This, rather complex empirical research, offers a set of the findings about interrelations between these seven factors, which were postulated to be influencing organisational effectiveness. Multiple regression and path coefficients carried out show that scope, pervasiveness, and salience are important for explaining a variance in the effectiveness of the grain cooperatives analysed.

#### 4. MEMBERS' PARTICIPATION AND ATTITUDES

52. BHUYAN, S. (2000) *Grower and Manager Issues in Fruit and Vegetable Cooperatives*. Paper presented at NCR-194 Annual Meeting, December 13, 2000, Las Vegas, Nevada.

Available Internet: <http://www.agecon.ksu.edu/accc/ncr194/publications.htm>

A paper that identifies problems and prospects of fruit and vegetable cooperatives as related to growers' and managers' values, attitudes and perceptions, in 145 cooperatives located in the Northeast/Mid-Atlantic region. In terms of member attitudes principal reasons for joining cooperative are market related, such as to reduce market risk, or to gain access to value-added markets. Principal issues/concerns identified by growers are price received for their commodities, communication between board and managers and members, leadership and management skills of the managers and board members, and the need to attain voice in cooperative decision making. Principal reasons for not joining a cooperative as identified within non-members are an inadequate location and production of cooperatives, and also a lack of minimum investment required. On the other hand, managers identify that major problems currently faced by cooperatives are (1) lack of member loyalty; (2) inability to control or manage operating costs, (3) inability to balance different interests of members, (4) high expectations of the members, and (6) difficulties to find good farmers leaders for the cooperative management. Areas needing improvement include (1) sales (2) product quality standards, (3) services provided to farmers. While managers question member loyalty, members show dissatisfaction with the leadership and skills of the cooperative management.

53. EITZEN, D. S.(1970) A Study of Voluntary Association Memberships among Middle-class Women. *Rural Sociology*, 35 (1), 84-91

A study that data obtained from the interviews with women from small rural townships in Kansas to examine the possible effects of some independent variables on the extent of the voluntary association membership. The independent variables are (1) community size, (2) length of residence, (3) age, (4) home ownership, and (5) anomie-the level of alienation. This particular research shows that middle-class women in small rural townships tend to belong to significantly fewer organisations than their counterparts in larger communities, and that the length of residence in the community has no significant influence upon membership. Data also suggest that there is an increase in participation of persons 40 to 54 year of age, and that home owners have significantly higher involvement in voluntary association than home renters, and finally, if the level of alienation in the community is lower, there will be a greater number of organisations and stronger membership involvement.

54. FOXALL, G. R. (1977) Social Marketing of Agricultural Co-operation in Britain: An Exploration. *Agricultural Administration*, 4 (1), 1-12

This study explores the applicability of social marketing methods in promoting agricultural co-operation amongst British farmers. The following elements of the marketing mix are particularly relevant to the marketing of co-operation: the product, pricing and communication. It also reviews some empirical findings from the U.K. showing that farmers who are not involved in co-operation as reasons mentioned the reduction in the independence implied in membership, a lack of beliefs in co-operative principles and reduction in profit attributed to membership. The economic (factors of high capital investment, risk and opportunity costs), and the socio-psychological factors play a decisive part in influencing farmers to join and use co-operatives. The article reviews some findings about the role of different channels of communication for promoting co-operatives and points at informal types of communication as more effective in informing farmers about benefits of co-operation.

55. GASSON, R. (1977) Farmers' Approach to Co-operative Marketing. *Journal of Agricultural Economics*, 28 (1), 27-37

A study in which members of two marketing co-operatives (vegetable co-operative and potato co-operative) in eastern England are asked to establish why they joined co-operatives in the first place, and what they used co-operatives for. The dominant reasons for joining are to seek commercial strength and to make use of convenient services, whilst a minority were persuaded or joined believing in the principles of co-operation. Commercial strength corresponds with the theoretical objective of exercising countervailing power and securing for producers a larger share of the marketing margin. Making use of convenient services corresponds to some extent with economies of scale in the market process and the fact that co-operatives provide services at lower costs or more efficiently as alternative outlets. This survey also suggests that members who approach co-operative marketing in a pragmatic way - to look for commercial strength or convenience in co-operatives - tend on the whole to make good use of the services available. On the other hand, persuasion and belief in co-operative principles only cause a minority of the farmers to join, and those who approach co-operation more idealistically may prove not to be effective members.

56. MISRA, S., K., CARLEY, D. H., FLETCHER, S. M. (1993) Dairy Farmers' Evaluation of Dairy Cooperatives. *Agribusiness*, 9 (4), 351-361

This research uses survey data of around 2,500 dairy farmers located in the southern United States to analyse the factors influencing the degree of farmers' satisfaction with the overall performance of dairy marketing cooperatives. An ordered probit model is performed and results indicate that dairy farmers analysed perceive the cooperative's ability to (1) hold down operating and marketing costs, (2) to provide higher prices and competent field services, and (3) assure a market for their milk products, as important attributes of efficient cooperatives. Furthermore, the study finds that longer term affiliation of dairy farmers with a cooperative results in a higher degree of satisfaction.

57. ROGERS, D. L. (1971) Contrasts between Behavioural and Affective Involvement in Voluntary Associations: An Exploratory Analysis. *Rural Sociology*, 36 (3), 340-358

Behavioural and affective forms of membership involvement in voluntary associations are compared on the basis of data collected from members of three farm cooperatives in Wisconsin. The purpose of this empirical analysis is to explore the relative effects of selected independent variables on membership involvement in farm cooperatives. Two sets of dependent variables are identified. Behavioural involvement is measured by a three-item index composed of (1) attendance at meetings, (2) recruitment of new members, and (3) support of organisational policies. Affective involvement refers to an actors' cathetic evaluative orientation to a particular cooperative, and is determined through the use of a ten-item identification and loyalty scale. Independent variables are multi-complex and grouped into three categories: (1) members' attitudes toward and beliefs about certain aspects of the cooperative to which they belong, such as the effectiveness, amount and distribution of control, (2) general attitudes towards and beliefs about collective action, (3) basic socio-economic variables which previous research has indicated as being related to the involvement in cooperatives - age, education, farm size and gross farm income. The results of multiple regression indicate (1) the income benefits, (2) the anticipation of income benefits, and (3) non-income benefits such as fellowship or education, ranked highest for behavioural involvement of the members. The perception that the local leaders hold the same opinions as the members, and that the member is able to influence policies and activities in the local organization tend to play the largest role in accounting for members' psychological commitment to, or, identification with the organization.

58. SIEBERT, J. (1994) *Co-ops: What Farmers Think!* Center for Cooperatives, University of California, Davis

Results from a survey on members' attitudes and expectations, as well as support for traditional principles of cooperation are presented. A comprehensive survey is developed and undertaken within twelve Californian cooperatives, and around 800 respondents-members are included. Respondents are asked to record varying degrees of agreement with a particular statement which relate to cooperative principles, cooperative performances and priorities. Findings indicate moderate support for the use-benefit, user-controlled principles, and little support for the user-finance principle. In terms of ranking the biggest disadvantages to being a member of a cooperative is that it takes too long to receive the final payments, and there is too much money tied up. The author argues that the lack of strong support of the user-finance principle is a sign of the need for further education about the unique features of cooperatives.

59. TRECHTER, D., KING, R. P., WALSH, L. (2000) *Member Communications in Cooperatives*. Paper presented at NCR-194 Annual Meeting, December 13, 2000, Las Vegas, Nevada.

Available Internet: <http://www.agecon.ksu.edu/accc/ncr194/publications.htm>

This paper deals with member commitment within agricultural cooperatives and attempts to answer (1) what factors are associated with the level of member commitment, and (2) what factors are associated with preferences for different communication techniques. A survey of 220 managers of agricultural cooperatives of Minnesota and Wisconsin points at the following sources of the difference in the level of member commitment: (1) members characteristics such as age, education, (2) features of cooperative structures (number of sites, local assets), (3) communication strategies (newsletters manager communication), and (4) financial characteristics. In terms of communication techniques, (1) communication via managers, (2) press release, and (3) focus groups prove to be significant factors in defining the level of member commitment. A preference for particular communication channels, this study identifies (1) manager tenure, (2) cooperative education, (3) number of newsletters published, (4) press release and (5) the existence of website.

60. USDA (1998) *Member Participation in Agricultural Cooperatives: A Regression and Scale Analysis*. Rural Business-Cooperative Service, RBS Research Report 165

In this report characteristics that influence member participation in cooperatives. Participation measures are identified. These include (1) attendance at meetings, (2) serving on committees, (3) serving as an elected officers, (4) and recruiting other farmers to become members. The empirical analysis is based on the survey of 1156 dairy farmers from the same Midwest dairy cooperative. In terms of the analytical approach, Likert scale analysis and regression analysis are used to determine the factors/member characteristics which were statistically significant and related to these four participation measures. These member characteristics are: (1) farm characteristics, (2) member demographics, (3) beliefs in cooperative principles (4) collective action, (5) members influence, (6) cooperative impartiality, (7) satisfaction with farming and cooperative officers.

61. WARNER, W. K., ROGERS, D. L. (1971) Some Correlates of Control in Voluntary Farm Organisations. *Rural Sociology*, 36 (3), 326-339

This article analyses the membership control in voluntary farming organisations as related to the behavioural and affective measures of membership involvement and perception of income and other organisational benefits. This empirical research only confirmed moderate correlation between amounts of a perceived influence in the local farming organisation and a degree of membership involvement.

62. WARREN, R. D., ROGERS, D. L., EVERS, F. T. (1975) Social System Goals in Cooperatives. *Rural Sociology*, 40 (1), 31-4

An investigation of organisational goals of farmer cooperatives using the social system approach. The four goals of organization are used in this study: (1) flexibility - the ability to quickly and easily make changes within the cooperative as needed to meet the changing demands of patrons; (2) satisfaction with the jobs and working conditions and the products and services satisfy patron demands and needs; (3) efficiency - the ability to generate the greatest possible returns from the available resources, and (4) productivity-the ability to obtain a high volume of business. Empirical research is gathered by interviewing managers in more than 150 farm cooperatives in Iowa. It examines a goal-differentiation by managers in terms of the perceived importance to cooperatives of these four goals and the pressure felt to achieve these goals. The results show that farmer cooperative managers expressed a greater emphasis on efficiency and satisfaction as goals than on flexibility and productivity. Productivity is found out to be the least important goal, and managers felt the least pressure to achieve flexibility.

## 5. NEW GENERATION CO-OPERATIVES

### 5.1 General

63. BAILEY, M., SPORLEDER, T. L. (2000) *The Real Options Approach to Evaluating a Risk Investment by a New Generation Cooperative: Further Processing*. Paper Presented at the Annual Meeting of NCR-194 Research on Cooperatives, Las Vegas, December 12/13, 2000.

Available Internet: <http://www.agecon.ksu.edu/accc/ncr194/publications.htm>

This research considers ways of evaluating the investment decisions, and takes into account that within a model of New Generation Cooperatives (NGCs) where the outcome of investment is less certain and the complexity of capital decisions apparent. Applies the real option analysis that encourages managers to weight equally all imaginable alternatives of investment decisions. Authors state that it has a greater potential analytical value as compared with more conventional decision-making approach - net present value (NPV). NPV and real option analysis are compared in the case of a NGC for corn tortilla chip processing, and the results of the dynamic simulation model confirm that the flexibility of managers is an important criterion for making decisions regarding sunk cost investments.

64. BLACK, J. R., BARNETT, B. J., HU, Y.(1999) Cooperatives and Capital Markets: The Case of Minnesota-Dakota Sugar Cooperatives. *American Journal of Agricultural Economics*. 81 (5), 1240-1246

Describes a potential use of new risk-sharing instruments by three new generation cooperatives involved in sugar-beet-processing in Minnesota and North Dakota. Empirical research illustrates that the level of systematic yield risk facing this industry is significant, and that there are difficulties in transferring these risks using traditional private markets. It is argued that there is potential for the cooperatives to act as an insurance company providing tailored individual crop yield insurance.

65. BROWN, R. B., MERRETT, C. D. (2000) The Limited Liability Company Versus the New Generation Cooperative: Alternative Business Forms for Rural Economic Development. *Rural Research Report*, 11 (7)

Compares the benefits and problems of the limited liability company (LLC) and the new generation cooperative (NGC) as two specific types of collaborative agricultural enterprises. The major difference is in the ownership structure, where LLCs allow for community involvement, not just farmers' involvement as in NGCs, which are designed strictly for member-farmers. Authors, therefore, argue that LLCs might be far more beneficial for rural communities since they assume (1) diversity of membership, (2) wider exposure to capital, (3) greater potential in achieving threshold membership, (4) greater community commitment, and (5) flexibility in options to grow.

66. COBIA, D. W. (2000) *New Generation Cooperatives: External Environment and Investor Characteristics*. Paper presented at the conference on “Cooperatives: Their Importance in the Future of the Food and Agricultural System”, Las Vegas, NV, January 16-17, 1997.

This paper comments on the external environment that may influence cooperative development, specially in North Dakota, and reports on differences between farmers that do and do not belong to New Generation Cooperatives. The empirical research is based on data obtained from 30 members engaged in four NGCs and non-member farmers. There are important differences between member and non-members, where members tend to be younger, better educated, have more net worth, view themselves as in the food processing industry and have more positive attitude towards new cooperatives. In terms of external support systems, it was found that the presence of qualified facilitators as the farming groups move through the early organizational phase, and financial grants to support the organisational phase of cooperative formation are essential for the developing of NGCs.

67. CROPP, R. (2001) Starting a New Generation Cooperative. In Merret, C. D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 25-41

This research sets out a ten-step model for creating successful NGCs, and provides a detailed review of some research on factors underlying success in organising NGCs. Two of the most difficult tasks in creating NGCs are (1) obtaining finance, and (2) keeping members interested in participating. Some other problems related to the organising NGC are (3) lack of a clear vision, (4) inadequate planning, especially in designing the plant, and (5) problems in accurately assessing the market for the final product.

68. FULTON, M. (2001) Traditional versus New Generation Cooperatives. In Merret, C.D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 11-25

A study that explores the differences and similarities between NGCs and traditional cooperatives. NGCs differ substantially from traditional cooperatives in terms of structural elements and motivation for their formation. The basic argument put forward is that NGCs have evolved as a new organisational form due to a complex set of pressures and forces that are both external and internal to cooperatives. The external forces revolve around the changes occurring in the agricultural sector at the end of the twentieth century, while the internal forces relate to the need for cooperatives to provide different incentive structures for their members.

69. KOTOV, I. (2000) *New Generation Cooperatives: A Short History of the Idea and the Enterprise*. Illinois Institute for Rural Affairs Obtained from Internet: [www.iira.org](http://www.iira.org)

This article provides some insight into reasons why NGCs became popular in the 1990s, and traces the history of cooperatives in Upper Midwest states. In order to gather some information about the reasons for starting up with NGC, a brief survey of the leaders of some NGCs is undertaken. Almost a half of respondents stress general unfavourable economic conditions for farmers as the main reason for starting cooperatives. As benefits for farmers-members of NGCs this research mentions improved market entry and development, a share in processing and facility ownership, and contract longevity.

70. NILSSON, J. (1997) New Generation Farmer Co-operatives. *ICA (International Co-operative Alliance) ICA Review*, 90 (1), 32-38

A comprehensive, easy-to understand review of the new generation co-operatives. Presents 22 features of the NGCs under the subheadings of (1) the model, (2) production, (3) ownership and (4) management. In evaluating NGCs it is outlined that the horizon problem does not exist, due to tradeable shares, the free-rider behaviour is limited, and portfolio problems are minimal.

71. OLSON, F., KIBE, T. F., GOREHAM, G. A.(1998) *New Generation Cooperative Membership: How Do Members Differ from Nonmembers?* North Dakota State University, NDSU Extension Service, Extension Report, No. 40.  
Available online: <http://www.ext.nodak.edu/extpubs/agecon/er.er40w.htm>

A paper that provides information on the differences and similarities of farmers who do and do not become members of the NGCs. Empirical research includes around 500 members and potential members of four North Dakota NGCs. Also compares the characteristics of farmers who became members of large, crop-related and small, livestock-related NGCs with non-members. Results show that on average members of the NGCs are younger than non-members and tend to have higher levels of education. They also farm more acres, and have more net income from farming and a stronger financial condition, or debt/asset ratio than non-members. The NGC members feel more strongly than non-members that their role with agricultural industry extends beyond production and goes into the food processing and distribution business. On the other hand, non-members believe that cooperative have inferior products, too strict contracts terms and too high initial investment. Finally, members consider returns from NGC to be similar or slightly higher than the alternative investment, while non-members have an opposite view.

72. PLUNKETT, B., KINGWELL, R. (2001) *New Generation Co-operatives in Australia: Principles and Practicalities*. Contributed Paper to the 45<sup>th</sup> Annual Conference of the Australian Agricultural and Resource Economics Society, Adelaide, 22-25 January, 2001

A descriptive paper on how principles embodied in NGCs overcome the capitalisation and governance problems of traditional processing/marketing co-operatives, and discusses the potential applicability of the NGC model in Australia. Drawing on an Australian case study of Tatura Milk Industries - the Victorian co-operative milk processor it is argued that this co-operative has essentially achieved an NGC structure and outcome with less modification of traditional co-operative structure (Rochdale) than the NGC model. Similar to other NGCs, Tatura has defined membership, concentrates on capital expenditures, maintain a tight business strategy, and is fully internally funded by means of shareholders equity. The paper also highlights how the structure of this co-operative has evolved as a response to agency, capitalisation and governance problems.

73. SPORLEDER, T. L. (1999) Capital Market Innovations and Agricultural Cooperatives. *American Journal of Agricultural Economics.*, 81 (5), 1247-1249

A short review on the risk-mitigation aspects of agricultural cooperatives, especially as they can be applied to NGCs.

74. STEFANSON, B., FULTON, M., HARRIS, A. (1995) *New Generation Co-operatives: Rebuilding Rural Economies*. Centre for the Study of Co-operatives, University of Saskatchewan

This study introduces the following parameters for assessing NGCs: (1) reducing the rate of out migration, (2) increasing the population, (3) increasing the state's manufacturing jobs, (4) increasing the average per capita income of rural residents to the national average, and (5) diversifying agriculture and preventing a decline in farm numbers. There are several factors which are considered critical to successful NGC. The flexibility to deal with diverse groups, commodities and communities is crucial, as well as the presence of the outside agents or coordinators who link resources and information, and resolve conflicts. A realistic and comprehensive feasibility study is also one of the key elements of success. As the experience of NGCs in North Dakota and Minnesota show government agencies play the role of advisers, encouraging a positive attitude towards establishing NGCs, but the presence of the motivated, determined producers is also very important. Potential pitfalls for NGCs as identified in this study are: lack of the mission, inadequate planning, failure to use advisers and consultants, lack of membership leadership, lack of member commitments, inadequate management, failure to identify and minimise risk, and over optimistic expectations.

75. STEFANSON, B., FULTON, M. (1997) *New Generation Co-operatives: Responding to Changes in Agriculture*. Centre for the Study of Co-operatives, University of Saskatchewan

This booklet briefly outlines the conditions leading towards the emergence of a new model of agricultural co-operative enterprises, such as New Generation Co-operatives. Presents the NGC model as a form of producer ownership of processing ventures and discusses an extension of NGCs into Western regions of Canada. Also provides co-op profiles of a few NGCs and includes a detailed bibliography and list of useful websites related to New Generation Co-operatives.

76. WANER, J. (2000) *New Generation Cooperatives and The Future of Agriculture: An Introduction*. Illinois Institute for Rural Affairs Obtained from Internet: [www.iira.org](http://www.iira.org)

A paper that provides a brief description of the concept of NGCs and outlines common critical factors as a guide to developing NGC. Summarises the empirical literature on the success of NGCs and underlines the following factors as being important: the existence of networks of support, success in identifying and entering new markets, dedicated and unified groups of producers, informed and knowledgeable facilitators, successful and effective management, a strong business plan, and supportive financial institutions. Discusses the potential pitfalls for NGCs as identified in the literature, and in light of the enthusiasm over the success of NGC, addresses: (1) lack of clearly identified mission; (2) inadequate planning; (3) failure to use advisers and consultants, (4) lack of membership leadership, (5) lack of membership commitments, (6) inadequate management, (7) failure to identify and minimize risk, (8) over optimistic assumptions, (9) lack of capital (10) inadequate communication. The findings from a survey conducted in 1999 of New Generation Cooperatives in the United States, by the Illinois Institute for Rural Affairs are also included. According to this survey the most significant obstacles are marketing the product, borrowing funds from local financial institutions, and attracting enough members to participate. The NGCs surveyed also rate factors contributing to the success of cooperatives, and these are: successful marketing of products, accurate perception of the need for product, financial commitment of the members, favourable market conditions and effective management practices.

77. ZEULI, K. A. (1999) New Risk-Management Strategies for Agricultural Cooperatives. *American Journal of Agricultural Economics*. 81 (5), 1234-1239

A piece of research that develops the background for applying new risk-sharing instruments to mitigate the business risk of cooperatives. Argues that the risk-management issue has become more of a salient issue with the creation of NGCs, closed-membership cooperatives which require a substantial initial equity investment from farmer-members. A case study of the Dakota growers pasta company, as an example of NGC, is used to present two feasible risk mitigation strategies cooperatives can employ: (1) mitigate its own risk directly with capital market innovation that shift or share its systemic risk exposure, and (2) offer insurance directly to its members to cover each member's independent risk.

## 5.2 New Generation Co-operatives - Case Studies

Each of the following case studies of New Generation Co-operative is structured in a similar way. They all start by briefly outlining a history of the NGCs included in the analysis. Afterwards, case studies provide insights into the reasons for the formation of a new generation co-operative, the obstacles and opportunities during the start-up phase, the challenges associated with adopting the new generation co-operative model, the impact of the co-operative on the surrounding rural community, and the future prospects of NGCs. The underlying goal of these case studies is also to determine whether or not NGCs offer a promising strategy for farmers and rural communities in Illinois. Some of the case studies provide insight into lessons learned from the NGC which were closed (*Southwest Iowa Soy Cooperative*) or those that are a synonym for successful NGCs, such as *Golden Oval* or *The Story of the Mountain View Harvest Cooperative*. The case study of *Ranchers' Choice Cooperative* also provides important information regarding the challenges of new generation co-operative development in the communities with limited resources, and issues such as under capitalization, inexperienced management, unresolved conflicts, which are seen as the most important factors leading towards a failure of a particular NGC. The case studies also examine different approaches used in creating NGCs (such as an engagement of two farmers as in the case of *Heartland Organic Marketing Cooperative*).

78. BUSCHETTE, P. (2000.) *New Generation Cooperatives Case Study - Golden Oval*. Illinois Institute for Rural Affairs, Available: Internet: [www.iira.org](http://www.iira.org).
79. CARTER, D. (2000) *New Generation Cooperatives Case Study: Hard Choices: The Birth and Death of Ranchers' Choice Cooperative*. Illinois Institute for Rural Affairs, Available: Internet: [www.iira.org](http://www.iira.org).
80. CARTER, D. (2000a) *New Generation Cooperatives Case Study: Going Against the Grain: The Story of the Mountain View Harvest Cooperative*. Illinois Institute for Rural Affairs, Available: Internet: [www.iira.org](http://www.iira.org).
81. LIVINGSTON, K., et al (1998) *Northeast Missouri Grain Processors, Inc. Community Case Study*. Illinois Institute for Rural Affairs, Available: Internet: [www.iira.org](http://www.iira.org)
82. MERRET, C. D. (n.a.) *The Role of Value-Added Cooperatives in Rural Economic Development: The Case of Heartland Organic Marketing Cooperative* Illinois Institute for Rural Affairs, Available: Internet: [www.iira.org](http://www.iira.org)
83. SWALLA HOLMS, M., CURRY D. (2001) *New Generation Cooperatives: Case Study: Iowa Turkey Growers Cooperative and West Liberty Foods*. Illinois Institute for Rural Affairs, Available: Internet: [www.iira.org](http://www.iira.org).

84. WALZER, N., HOLMES, M. (n.a.) *Case Study of Southwest Iowa Soy Cooperative*, Illinois Institute for Rural Affairs, Available: Internet: [www.iira.org](http://www.iira.org)

### 5.3 The Impact of New Generation Co-operatives on Rural Communities

85. CROPP, R., GINDER, R., van der SLUIS, E. (1998) *Farmer's Cooperative and the City of Keota, Iowa: A Case Study*. A report for the U.S.D.A.-Fund for Rural America. Available: Internet: [Http://www.wisc.edu/uwcc/info/fra/case.html](http://www.wisc.edu/uwcc/info/fra/case.html)

A report showing how the increased and well-planned activities of a farm supply cooperative actually improved hog production within the local farming community. Presents an innovative program, a collaborative arrangement between members of Farmer's Co operative of Keota – a local farm supply and grain marketing cooperative, and Farmland Industries Inc. Farmers. Members of the cooperative can participate through an alliance farm system and a contract building system, which would provide them with a single source of high quality feed pigs for hog farmers who were members of local farm cooperative, and tends to reduce market risk exposures in hog production. What is more important, the swine program has helped a local community of Keota (around 900 people) to survive as a viable community, the authors report on the impacts of the increased hog production on the local community, such as enhanced profitability of the farmers, possibility for younger farmers to join the industry, a new employment and an increased tax base for the community, and the fact that trust and cooperation seems to have increased since the start of this program. Research findings also point at the need for appropriate information and advice from experts in the course in developing Keota cooperative model for the hog production.

86. EGERSTROM, L. (2001) New Generation Cooperatives as an Economic Development Strategy. In Merret, C. D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 73-91

A general review of NGCs as model of rural economic development and shows how this idea has spread from Minnesota and North Dakota to other rural areas of the U.S. The article is designed mainly to provide background information which may assist in NGC development.

87. LEISTRITZ, F. L., SELL, R. S. (2000) *Agricultural Processing Plants in North Dakota: Socioeconomic Impacts*. Agricultural Economics Report No. 437, Department of Agricultural Economics, North Dakota State University. [Http://agecon.lib.umn.edu/ndsu/aer437.pdf](http://agecon.lib.umn.edu/ndsu/aer437.pdf)

This report shows the socio-economic impact that four new agricultural processing plants, established as NGCs has, on their respective North Dakota communities. The specific objectives were to (1) evaluate the impact of plants on economic, demographic, public services and infrastructure in rural communities, (2) to develop a set of general principles and recommendations for community leaders to follow when a new agricultural processing facility is being considered.

88. MERRET, C. D., WALZER, N. (2001) A Survey of New Generation Cooperatives: Exploring Alternative Forms of Rural Economic Development. In Merret, C.D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 91-117

This research based on the responses from the survey of 120 NGCs authors explores the macro- and microeconomic reasons why the cooperatives were formed, and offer some basic descriptive statistics. The survey shows that that NGCs are concentrated in two states (Minnesota, and North Dakota), having corn as the primary commodity produced. The average farm size of NGCs reveals a bi-modal distribution with a disproportionately small percentage of medium-size farms. The study also offers a detailed empirical analysis of the factors promoting the formation of NGC, having 'capture more profit from crops' as the highest ranked factor, while 'successful marketing of product' was mentioned as the highest ranked factor contributing to the success/failure of NGCs. Generally, successful cooperatives identify marketing as one of the primary factors contributing to the profitability. Findings further suggest that NGCs which have greater collaboration with community agencies and other groups seem to be more profitable than those that do not.

89. NADEAU, E. G., WILSON, C. (2001) New Generation Cooperatives and Cooperative Community Development. In Merret, C.D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 55-73

A presentation of examples of positive and negative impacts of NGCs on the local rural communities as revealed in the case studies of the NGCs across the U.S. As positive effects authors list creating new jobs, expanding locally based business, support for family farms and small-scale production facilities, reducing the rate of youth out-migration, stabilisation of population, and consequently secondary and tertiary sectors in the community, and a stronger local tax base. Negative impacts are mainly related to the environmental problems.

90. van der SLUIS, E., LOEWE, P. (2000) *The South Dakota Soybean Processors Cooperative: Socioeconomic Impacts*. Paper presented at the NCR 194 Research and Cooperatives Annual meeting, Las Vegas, December 12-13, 2000

Report on research conducted on the social and economic benefits and costs associated with the establishment of the South Dakota Soybean Processors Cooperative in Volga, SD. The most important benefits to the community are the direct and indirect employment opportunities created by the cooperatives. In addition, community residents indicate the following benefits: an increase of farmers' income, a boost for the local business owners, an improved infrastructure and quality of life, and an increase in local public revenue and expenditures. The residents indicate that the processing cooperative/plant has negative or very negative impacts on the air quality, and they show some concerns about increased truck traffic, new residents moving into the area, and an expected increase in housing costs. The study also shows that important drivers of the economic success of NGC are leadership capabilities, such as their ability to provide a vision regarding the future role of their organization and need to demonstrate

a willingness to cooperate with local leaders and citizens by providing substantive information to the public regarding the project plan.

91. ZEULI, K (1998.) *Cooperatives and Communities: Findings, Previous Research, Ideas for Further Study*. In USDA: *The Impact of New Generation Cooperatives on Their Communities*. Rural Business-Cooperative Service, RBS Research Report 177, 5-15

This is a review of previous research on cooperatives, focusing on the motives members have in establishing cooperatives and on economic, social and environmental impacts New Generation Cooperatives have on their local communities. Apart from income enhancement, it highlights the issues of community cohesion, demographic shifts, development of human capital, and a range of environment impacts as identified in the empirical literature.

92. ZEULI, K., et al. (1998a) *Dakota Growers Pasta Company and the City of Carrington, North Dakota: A Case Study*. A report for the U.S.D.A.-Fund for Rural America

An analysis using a case study method shows the impacts of a particular NGC on its members, non-members, rural community and local government. Generally, as the highest ranked positive impacts, the case study identifies attitude changes, particularly a more positive attitude towards the community, improved citizens attitudes, and 'we-can-do-it' attitude. The second highest ranked positive impacts were a higher taxable income from wage and salaries, increased housing values, help to preserve the businesses that already exist in the community, growing community, and increased tax base. This research indicates what is needed for successful NGCs: (1) technical assistance, (2) education, and (3) research on critical success factors for cooperatives and guidelines for creating cooperatives.

## 6. OTHER STRUCTURAL ARRANGEMENTS OF AGRICULTURAL CO-OPERATION

93. BUREAU OF INDUSTRY ECONOMICS (1995) *Beyond the Firm: An Assessment of Business Linkages and Networks in Australia*. Research Report 67, Australian Government Publishing Service, Canberra

This research undertakes a survey of the firms which operate in five industries (one of them is food industry), and gathers information on the nature and extent of cooperative arrangements, areas in which firms cooperate, benefits and costs of networking, and the importance of business networking in firm performance. Using this report as a reference in studying agricultural cooperation is considered appropriate since it presents the findings by industry, and also offers some theoretical discussions about why and how firms cooperate.

94. FARRELL, T. C., TOZER, P. R. (1996) Strategic Alliances and Marketing Cooperatives: a Lamb Industry Case Study. *Review of Marketing and Agricultural Economics*, 64 (2), 142-151

A discussion of the main aim of strategic alliances within the lamb industry, which is to develop the market for products that meet certain specifications and to increase market share by developing intersectorial loyalty. Lamb marketing alliances are examined for long term profitability with an emphasis on the benefits and costs which occur to lamb producer groups. Other aims of the alliances also include minimisation of risk by reducing price fluctuations and removing price distortion. A conceptual framework is applied to a lamb industry case study in NSW and results suggest that strategic alliances between producers and retailers can yield price premiums. In the case of the Guyra Lamb Marketing Group these benefits were estimated to be 20-40 cents per kilogram from producer to retailer within the alliance compared to the alternative supply channels.

95. FOXALL, G. R. (1981) Is More Cooperation the Answer? *Journal of Agricultural Economics*, 32 (1), 55-63

This study highlights the effects of second-tier cooperative organisations on cooperative development in general. This 'cooperation among cooperatives' or 'associative arrangements among primary agricultural cooperatives' already in existence in some European countries are expected to be developed in the UK. The author argues that this process will start by attitude changes on the part of cooperative managers and farmer-members which is an essential prerequisite for successful policy for second-tier cooperatives. Cooperatives which are unable separately to achieve the benefits desired by their members might locally explore the probability of taking united action in order to make more efficient use of their joint transport facilities, management and investment. Associations among cooperatives are generally expected to fulfil the following roles: to improve producers' income, to support creation of economies of scale, cost reduction, countervailing power and vertical integration. Furthermore, in promoting second-tier agricultural cooperatives it is necessary to: (1) inform primary

cooperatives about regulations, standards and trading arrangements originating within the EU, (2) provide financial expertise when necessary, and (3) keep cooperative managers up to date with technological development, and to provide market intelligence services.

96. FULOP, L., KELLY, J. (1995) *A Survey of Industry Network Initiatives in NSW*, University of Western Sydney

An exploratory study based on data obtained from members of three business networks in NSW was undertaken to develop understanding of: (1) network key objectives, (2) process of networking, (3) attitudes and values within the networks (4) networks performance indicators. It is a useful reference for studying other forms of agricultural cooperation since it clarifies some basic concepts of the different structural arrangements, as the two business networks analysed are involved in agribusiness - *Riverina* and *Sydney Food Groups*. This report offers a solid methodological approach to studying other forms of agricultural cooperation which can be applied to different empirical settings.

97. FULTON, M., ANDERSON, K. (2001) Value-Added Enterprises in the Rural Community. In Merret, C.D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 129-147

This research analyses different ways to increase coordination along the value chain, and examines the investment in value-added agriculture with a particular emphasis on NGCs. The NGCs are seen as an attractive mechanism for value-added investment because they are able to overcome the free-rider and the horizon problem. However, in forming NGCs the main obstacles are very large capital requirements and some non-traditional risks (food-safety risk, control risk, business-interruption risk) which are associated with vertical coordination.

98. HANSON, M. J. (2001) Cooperative Organization for Value-Added Agribusiness. In Merret, C.D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 41-55

A description of the legal issues surrounding the formation of cooperatives and shows how value-added businesses, including NGCs, can be created using many alternative forms and organization structures. Different types of value-added cooperatives are listed including marketing cooperatives, direct processing cooperative, joint-venture processing cooperatives, business development and producer alliances, and examples are provided for each.

99. HOBBS, J. E., COONEY, A., FULTON, M. (2000) *Value Chains in the Agri-Food Sector: What are They? How do They Work? Are They for Me?* Department of Agricultural Economics, University of Saskatchewan

A study that seeks to establish the substantial differences between a co-operative and vertical value-chain, but refers to some experience of Danish farm co-operatives in co-ordinating activities in the pork-hog industry. Also emphasises the importance of co-ordination, co-operation and communications in establishing value-added vertical business alliances, particularly in emerging agricultural industries. This piece of work can be seen as a handbook for checking the important stages and resources needed for establishing/joining value chains, and deals with questions of: where to start, who is involved, and what are the benefits to the organization.

100. HOLMUND, M., FULTON, M. (1999) *Networking for Success: Strategic Alliances in the New Agriculture*. Centre for the Study of Co-operatives, University of Saskatchewan

A paper that assists in understanding the concepts of strategic alliances and networks through useable definitions and discussions of their background. Includes some practical advice about how to form and maintain strategic alliances and introduces the reader to some examples of successful alliances as a guide to resources and contacts.

101. LING, K. C., LIEBRAND, C. B. (1998) Dairy Cooperatives' Role in Coordination In Royer, J., Rogers, R. (eds) *The Industrialisation of Agriculture: Vertical Coordination in the U.S. Food System*. Brookfield, Ashgate, 333-346

A study that focuses on vertical integration showing how dairy farmers integrate forwards into marketing channels through farmer-owned, farmer-controlled and farmer-used dairy cooperatives. Also identifies six separate categories of vertical integration by dairy cooperatives, and these are (1) bargaining cooperatives, (2) bargaining-balancing (3) undifferentiated hard-product manufacturing cooperatives, (4) niche marketing cooperatives, (5) fluid processing cooperatives and (6) diversified dairy cooperatives.

102. MATTHEY, H., ROYER, J. (1998) *Backward Integration by Cooperatives in Imperfectly Competitive Agricultural Raw Product Markets*. Paper presented at American Agricultural Economics Association Meeting, Salt Lake City, Utah, August 2-5, 1998

A paper that models backward integration of marketing co-operatives and develops four economic models such as single active and passive co-operative with members and non-members, as it comes from the general structure of the markets.

103. Rural Industries Research and Development Corporation (1997) *Factors Inhibiting and Encouraging Collaborative Marketing by Agricultural Producers*. RIRDC Publication No. 97/72

An extensive piece of empirical research on 13 collaborative marketing groups (including horticultural, wool, floricultural, grain industry and groups and regional cooperatives based in Western Australia). Analyses qualitative and quantitative data collected from case studies and survey of the collaborative marketing groups - as an alternative to more regulated primary industry organisations. The main objective is to answer (1) why collaborative groups form, (2) how they sustain, (3) why they fail to sustain, and (4) what institutional support should be provided. Data collected indicates a list of features that influence the effectiveness of collaborative marketing groups and these are: (1) background and groups formation, (2) group maintenance, (3) initial activities, (4) communication, (5) membership characteristics, (7) management characteristics, (7) group focus, (8) group process, and (9) group closure. In terms of recommendation this study emphasises the importance of improving skills in group processes, including leadership skills, and acquiring knowledge of appropriate organisational structures for collaborative groups, as well as the ramifications of the various approaches to product contribution and quality control. Appendices include a detailed overview of each collaborative marketing group included in this empirical analysis

104. Rural Industries Research and Development Corporation (2001) *Regional Australian Olive Oil Processing Plants*. RIRCD Publication No.00/187

A paper that contains a small section on the need for and steps in establishing alliances and co-operation amongst olive growers. Within a framework of this particular alliance form, the biggest benefits are seen in an expanded supply base of reliable products, and resulting in improved returns for members/growers. Highlights the benefits of collective action by olive growers, such as a general idea of working as a team, rather than competing in a rapidly supply driven industrial sector.

105. SCHRADER, L. F., BOEHLJE, M. (1996) *Cooperative Coordination in the Hog-Pork System: Examples from Europe and the U.S.* Staff Paper 96-21, Department of Agricultural Economics, Purdue University

This paper describes and evaluates alternative models of cooperative coordination in the hog-pork chain. These models are inductively developed through interviewing executives from selective cooperatives and other leaders involved in the hog-pork industry in E.U. and the U.S. The cooperatives included in the analysis are selected based on the differences in their approach to vertical alliances or coordination. As major objectives of cooperative activities in the hog-pork sub sectors authors proposes better access to technology, access to markets, access to highly quality inputs, added-value bargain, added-value processing, access to information, and quality control.

106. VANDERBURG, J. M. (2000) *Driving Forces and Success Factors for Mergers, Acquisitions, Joint Ventures, and Strategic Alliances among Local Cooperatives*. Paper presented at NCR-194 Annual Meeting, December 13, 2000, Las Vegas, Nevada. Available Internet: <http://www.agecon.ksu.edu/accc/ncr194/publications.htm>

The author examines factors that influence cooperatives to become involved in mergers, acquisitions, joint ventures, and strategic alliances. The paper uses cooperatives already involved in those business arrangements and identifies the relative importance of, and various driving forces that motivated their involvement. The empirical research is based on the data acquired from seventy local agricultural supply and grain marketing cooperatives in Indiana and Colorado. The results show that the cooperatives with greater number of business activities, and higher levels of information technology adoption, are more likely to be involved in those business arrangements. The most important driving forces behind these arrangements are directly related to consolidation of agricultural sector (such as industrialisation of agriculture, decreased profits, increased costs). The analysis also implies that important success factors are those related to interpersonal dynamics in the co-operative such as trust, communication, commitment, and having managers that can work together as a team.

107. WELSH, R. (1997) Vertical Coordination, Producer Response, and the Locus of Control Over Agricultural Production Decisions. *Rural Sociology*. 62(4), 491-507

A paper outlining recent structural changes in U.S. agriculture and collective responses to those changes, with a focus on ideologies of agrarian social movement. Starts by explaining an increase in vertical coordination and afterwards describes some specific forms of producer collective action such as the formation of bargaining units in the poultry industry (the National Contract Poultry Grower's Association), and the formation of producer networks in the hog industry.

108. WILLIAMS, C., MERRET, C. D. (2001) Putting Cooperative Theory into Practice: The 21<sup>st</sup> Century Alliance. In Merret, C. D., Walzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 147-167

This research traces the development of a multi-dimensional NGC in Kansas-the 21<sup>st</sup> century Alliance - and why this venture is successful and able to access multiple markets. The 21<sup>st</sup> Century Alliance is formed to improve risk management, to preserve farmer control and to increase profits for the members. The Alliance consists of the five NGCs which are involved in grain processing, bean processing, dairy industry and agricultural fibre procurement. The Alliance is especially instructive because of the diversity of products involved, and a powerful and innovative strategy for sustaining farms and rural communities.

## 7. AGRICULTURAL CO-OPERATIVES IN THE 21<sup>st</sup> CENTURY

109. COFFEY, J. D. (1993) Implications for Farm Supply Cooperatives of the Industrialisation of Agriculture. *American Journal of Agricultural Economics*, 75, 1132-1136

A paper showing general trends of the industrialisation of agriculture and elaborates implications for farm supply cooperatives. Farm supply cooperatives are also evolving in order to capitalise upon their strategic position in the market, such as (1) a comprehensive distribution system, (2) the ability to package the products and services into a one-stop centre, (3) a favourable reputation as an information source, and the leading production information source for farmers.

110. CÔTÉ, D., (2000) *Mobilizing the Co-operative Advantage-Canadian Agricultural Co-operatives in the 21<sup>st</sup> Century*. Canadian Co-operative Association (includes *Summary Report*)

An article that acknowledges that co-operatives of the 21<sup>st</sup> century would face a substantial increase in demand from their members, and that considerable importance must be given to co-operative education. Reviews various structural changes affecting the strength of co-operatives to different degrees, and these are (1) the evolution of the member concept, (2) increase in sources of co-operatives where it is now not uncommon to have thousands of members, and membership of this size generates the problem of group or collective action, and (3) the interrelation of co-operative activities and those of the numerous competitors – that means that members tend to compare co-operatives with their competitors on the basis of product, services and price. Provides an evaluation tool for considering co-operative profiles, ‘a quadrant approach’, which distinguishes between co-operatives along two axes based on the intensity of co-operative rules, and intensity of competitive forces. The quadrant is used to illustrate the diversity of co-operative profiles of six case examples. This report also introduces the concept of a new co-operative paradigm which reinforces the idea that the co-operative identity can be a source of competitive advantages, and accordingly emphasises the importance for farmers and the co-operatives in building internal cohesion and strengthening their co-operative identity. The report concludes with some recommendations for the co-operative sector at the beginning of the 21<sup>st</sup> century, which includes three groups of recommendations (1) reclaim the co-operative advantages, (2) increase knowledge and innovation, (3) cultivate internal cohesion. Recommendations to government mostly relate to the need for research and development and trade support, as well as government partnerships.

111. FABER, D. EGERSTROM, L. (2001) New Generation Cooperatives in the New Millennium. In Merrett, C.D., Waltzer, N. (eds) *A Cooperative Approach to Local Economic Development*. Quorum Books, Westport, CT, 167-187

This research explores the viability of a NGC firm as a business model to follow in the future, and makes some observation about what NGC do well, and their shortcomings. NGCs can lead to an increase in the local employment, and stimulate local wealth

creation which are important for community revitalization and development. It is also argued that the NGC model is very applicable since it provides significant transaction-costs benefits for their members, and can eliminate most of agency theory problems that may arise within co-ops. One of the main cautions comes from the fact that a NGC venture is rather risky, and it is necessary to provide some safe measures of protection against depressed agricultural or food prices during cycles of abundant supply and low demand.

112. FULTON, M., GIBBINGS, J. (2000) *Response and Adaptation: Canadian Agricultural Co-operatives in the 21<sup>st</sup> Century*. Centre for the Study of Co-operatives, University of Saskatchewan

A piece of research that identifies five distinctive patterns of change that agricultural co-operative undergo. Pattern I refers to the fastest growing co-operatives (such as new generation co-operatives, super-locals, food franchise co-operatives). Pattern II relates to the co-operatives under considerable stress, facing financial difficulties and loss of membership, and co-operatives in this group tend to be centralized, large and multi-purpose. Co-operatives which fall into pattern III are engaging in mergers and acquisitions, those in Pattern IV are characterised by declining member commitments. Finally, pattern V is common for a number of co-operatives where geographic location is becoming less and less important and instead other similarities, such as a type of commodity production, provides a bonding force. Seventeen case studies that fit the patterns were identified. A summary of the key points raised in assessing case studies of successful co-operative transformations are included, and authors argue that the co-operatives will change because of both external and internal pressure, and identify the following as the most important factors coming from the environment: changing role of government, structural changes, changes in consumer culture and rapid changes in technology. Internal factors affecting co-operatives are those associated with life cycle and property right problems, and incentive problems associated with providing members with a strong sense of ownership and control.

113. KYRIAKOPOULOS, K. (1998) *Agricultural Cooperatives: Organising for Market-Orientation*. IAMA World Congress "Building Relationships to Feed the World: Firms, Chains, Blocs", Uruguay, 29 June-2 July 1998

A paper that outlines the need for agricultural cooperatives to become market-oriented and also addresses questions regarding changes of the strategy and the structure of cooperatives. As potential problems for market orientation of cooperatives the author mentions: (1) agency problem of cooperative organizational arrangements, and (2) problems associated with the business conduct of cooperatives.

114. NILSSON J. (1998) The Emergence of New Organisational Models for Agricultural Cooperatives. *Swedish Journal of Agricultural Research*, 28 (1), 39-47

This research identifies the core characteristics of the traditional cooperative model which complies with cooperative principles, and specifies the economic conditions under which these characteristics are instrumental for efficient business operations. Also gives an account of the core organisational characteristics of the entrepreneurial cooperative model which is well adapted to the new economic conditions that agricultural cooperatives are facing. These organisational characteristics are (1) differentiating between the phases in the processing chain, and the trend that a growing number of cooperatives focus their operation on the later stages of the processing chain, (2) large supply at the first stage in the processing chain is necessary, leading towards further, even international, mergers of cooperatives, (3) the changes in relation to members, where cooperatives are likely to conduct business like the investor-owned firms, (4) and obvious market orientation in the subsequent stages of the processing chain.

115. USDA (1997) *Cooperatives in a Changing Global Food System*. Rural Business-Cooperative Service, RBS Research Report 157

This report examines how U.S. agricultural cooperatives respond to current trends towards the globalisation of the agricultural and food sector, and stresses advantages and disadvantages of cooperatives' structures in facing the challenges of industrialisation/globalisation. Three case studies of agricultural cooperatives (*Land O'Lakes*, *Harvest States Co-operatives*, and *Farmland Industries*) are included to illustrate the extent to which cooperatives' organisational structures may limit or enhance their ability to respond to global changes and to compete with investor-owned firms (IOFs) at the international level. Generally, factors limiting international involvement by cooperatives include the diverse interests of the membership, the high-risk level and the long-term nature of international investments. Cooperatives also have some potential advantages in the global food systems, such as being perceived as reliable, quality suppliers and ethical business partners.

## 8. OTHER ASPECTS OF AGRICULTURAL CO-OPERATIVES

116. GERTLER, M. (2001) *Rural Co-operatives and Sustainable Development*. Centre for the Study of Co-operatives, University of Saskatchewan.  
Obtained from Internet: [Http://www.iira.org/pubs/](http://www.iira.org/pubs/)

A study that examines structural, economic, social, cultural and political factors that affect the ability of co-operatives to implement more advance forms of environmental management and sustainable development. This exploratory research draws on the evidence gathered from agricultural co-operatives in Costa Rica, Chile and Canada. The author argues that co-operatives are especially suitable to promote sustainable development and lists the following advantages of co-operatives with respect to facilitating a more sustainable development. The co-operatives (1) by definition integrate multiple economic, social and ecological objectives, (2) they build and reinforce community which is both a medium for, and a measure of, sustainable development, (3) have the capacity to embrace and act on longer planning horizons, (4) can reduce inequality and promote equitable sharing of the costs and benefits of sustainable development, and (5) have organisational capacity for communication, training and education. The author further focuses on the potential advantages of co-operatives when they take a pro-active approach to environmental management and sustainable development. The reasons are (1) co-operatives are active in natural-resources industries where sustainability issues are central concerns, (2) safety and eco-ethical considerations can be a central component in marketing co-operatives, (3) eco-social commitments can promote members' identification with the co-operatives and in fact can have positive implications for the viability and sustainability of co-operatives, (4) environmental management provides a basis for networking with other co-operatives that provide strategic resources, (5) co-operation among co-operatives is an ICA principle and it is essential in order to overcome the limitations of isolation. The co-operative structure and principles are appropriate for sustainable development, on the other hand, sustainable development could improve the organisational performance of the co-operatives, and can have positive implications for the viability and sustainability of co-operatives.

117. GLASBERGEN, P. (2000) The Environmental Cooperative: Self-governance in Sustainable Rural Development. *Journal of Environment & Development*. 9(3), 240-259

This research examines a number of case studies of environmental cooperatives in the agricultural sector of the Netherlands, and indicates the contribution of these specific cooperatives to a more sustainable development of the rural areas. Environmental cooperatives can perform an essential role in the renewal of the countryside, mainly in respect of reducing and preventing pollution, as well as orientation towards organically grown products. These eco-cooperatives place a strong accent on building networks and actually act as network brokers connecting government, agribusiness, and generally the organisations are concerned with nature and environmental protection.

118. ICA (International Co-operative Alliance). *Farmers' Organisations & Rural Co-ops*. Available: Internet  
<http://www.wisc.edu/uwcc/icic/orgs/ica/un/conf/worldsumm/wssd/farmer.html>

This short report provides some statistics on the number of rural co-operatives and market shares of farm input/output which were realised through the co-operatives. It summarises the report by the UN on the relevance of rural co-operative enterprises in agricultural and economic revival in developing countries.

119. LANG, M.. (1995) The Future of Agricultural Cooperatives in Canada and the United States: Discussion. *American Journal of Agricultural Economics*, 77, 1162-1165

A discussion of Cooks' (ref.no.4) and Fulton's (ref.no.7) views of the future of agricultural cooperatives in Canada and the U.S. Some general observations are given showing observations the need for cooperative leaders to convince their members to structure themselves to compete based on a multicommodity, value-added, and global base. This requires more aggressive marketing and membership that will be truly proactive.

120. LORENDAHL, B. (1996) New Cooperatives and Local Development: A Study of Six Cases in Jämtland, Sweden . *Journal of Rural Studies*, 12 (2), 143-150

This report on the effects that new cooperative enterprises have on local economic development, and a focus is on the impact of the cooperatives on (1) local employment, (2) the local infrastructure, and (3) the geographical patterns of buying which would favour local suppliers. Six cooperatives-tourist business, boat, housing, childcare, health care cooperatives and a community cooperative which is a multi-functional enterprise working within a limited geographical area, are investigated. All of these are located in Jämtland, a region in northern Sweden. Local employment generated by the new cooperatives was, ten new full time jobs. Five of the new cooperatives created local employment, varying between 2 and 10 full-time jobs, which in a small local community of around 100 people represents a valuable contribution to community regeneration. The cooperatives also helped to preserve the local infrastructure (school, shop and communications) by strengthening the population base in the community and by influencing municipal decision-makers. Finally, this research also emphasises the role of key people in promoting new cooperatives, arguing that government at different levels should allocate resources to such key people in order to facilitate the establishment and further development of cooperatives.

121. OECD (1998) *Co-operative Approaches to Sustainable Agriculture* OECD, Paris.

A paper that examines the experience of co-operative approaches to sustainable agriculture in Australia, Canada, The Netherlands, and New Zealand. The salient characteristics of the farm community groups and their main concerns and activities are outlined. Motives behind the formation of farmers' groups (1) concern about declining farm profitability, (2) an increasing awareness of the linkages between certain aspects of ecological sustainability and farm financial sustainability, (3) opinions within the

group's members that by taking their own initiative they would be more likely to achieve satisfactory, locally acceptable results. The external benefits expected to be derived from co-operative action are (1) those related to improvements in the environment itself, such as reductions in salinity, wind erosion, improvement in habitat for wildlife, and (2) those relating to co-ordination and the exchange of information, which are often related to scale economies. In terms of how effective the farmers' groups have been in tackling environmental issues it is argued that more evaluation studies are needed. However, according to this OECD study the results appear to be encouraging, such as the farmer-members of eco-cooperatives tended to have completed farm management plans and adopted soil conservation practices sooner than those outside the groups.

122. PARNELL, E. (2001) Supporting Rural Co-operation - The Role of the Plunkett Foundation. *Journal of Co-operative Studies*.34 (1), 8-24

While this paper focuses mainly on the role of the Plunkett Foundation (its objective of supporting rural co-operation by facilitating the exchange of information, undertaking action research and encouraging networking between co-operative practitioners, providing advice and training to those who are working in co-operatives), it also reviews the policy measurements that could be used in promoting rural co-operatives. The paper identifies the following as important for the development of rural co-operatives: (1) accessible information about co-operation - it means that information should be available on how co-operatives can be deployed to address some problems and opportunities of rural development, (2) the existence of networks, (3) the availability of competent mentors- people who are able to provide sound advice and guidance to co-operatives without seeking to exercise control over the enterprise, (4) the access to finance particularly in the early stage of their setting up and development. (5) to cluster successful co-operatives and to promote them, (6) the existence of a positive framework in terms of national public policy and that special needs of co-operatives should be recognised by policy makers and bureaucrats.

## 9. SELECTED CASE STUDIES OF AGRICULTURAL CO-OPERATIVES

### 9.1 General

123. MAUGET, R., DECLKERCK, F. (1998) Structures, Strategies, and Performance of EC Agricultural Cooperatives. *Agribusiness*, 12 (3), 265-275

A detailed overview of the economic importance of agricultural cooperatives in EC countries in terms of general characteristics (number of cooperatives, number of members and turnover, and also market shares of agricultural cooperatives in particular countries), and special features of the dairy, meat and cereal subsector. A sample of 27 major British, Danish, Dutch, Irish, French, German, and Spanish agricultural cooperatives is analysed. The empirical analysis presents detailed information about economic performances, financial structures and strategic actions of the agricultural cooperatives, and also includes performances of cooperatives by country and activity.

124. NILSON, J., KYRIAKOPOULOS, K., van DIJK, G. (1997) *Agricultural Co-operatives in the European Union-Current Challenges and Trends*. Paper presented at the conference on “*Rural Co-operatives in the Perspective of the Integration with the European Union*”, held in Zakopane, Poland, in December 1997

A paper that reinforces the trends and issues facing co-operatives in the E.U. (as presented in the reference no 126), as well as the conclusions about what the agricultural co-operatives could do in order to strengthen their competitiveness and how public policy could support this.

125. SCHRADER, L. F., BOEHLJE, M. (1996) *Cooperative Coordination in the Hog-Pork System: Examples from Europe and the U.S.* Staff paper 96-21, Department of Agricultural Economics, Purdue University

A useful overview of the role of cooperatives in pork production and marketing, and provides briefs on cooperatives in U.K., France, Denmark, The Netherlands, Germany and also reviews selected case studies from the U.S.

126. van DIJK, G., KYRIAKOPOULOS, K., NILSSON, J. (1987) The Future of Agricultural Co-operatives in the EU. In van Bekkum, O-F., van Dijk, G. (eds) *Agricultural Co-operatives in the European Union*. Van Gorcum, Assen, pp. 167-193

Research that highlights trends and issues facing agricultural co-operatives in the EU: a decreasing importance of the federated co-operative organisational forms, more frequent mergers, strengthening of the co-operatives' competitive power by purchasing other firms, and a general trend towards increasing vertical integration within the agricultural co-operative sector. In terms of financial arrangements authors further mention the emergence of new co-operative models such as transformation of co-operatives into publicly listed companies (PLCs), the introduction of the tradeable shares, or the closing of membership to new entrants, which corresponds to the model of New Generation Co-operatives. In terms of changes in membership arrangements it

is expected that more business – like trade between co-operatives and members will take place, as well as the introduction of strict delivery conditions, growing non-member trade and business activities. Other trends and issues are the introduction of new financial instruments, increasing importance of PLCs as subsidiaries, increasing non-member equity capital, a move towards more liberal legislation, and generally internationalisation of the EU agricultural co-operatives.

127. van BEKKUM, O-F. et al. (1987) *Agricultural Co-operatives at Cross-roads*. In van BEKKUM, O-F., van DIJK, G. (eds) *Agricultural Co-operatives in the European Union*. Van Gorcum, Assen, pp.18-28

This section provides some general statistics on agricultural co-operatives in the EU, such as market shares of co-operatives and lists the top 30 co-operatives. The whole book edited by van Bekkum and van Dijk systematically investigates the agricultural co-operative sector in the 15 EU member states. In doing so, a special emphasis is placed on typical co-operative issues such as membership relations, organisational and governance structure, financing, taxation, research and development, and marketing activities.

128. van BEKKUM, O-F. NILSSON, J. (2000) *Liberalization of International Dairy Markets and the Structural Reform of European Dairy Cooperatives*. Paper presented to the Agribusiness Forum of the International Food and Agribusiness Management Association (IAMA), “Consumers, Technology, and Environment: Creating Opportunity and Managing Risk”, Chicago, June 24-28, 2000

A study that demonstrates that European dairy cooperatives are affected differently by policy changes, and how these influence the distribution of price and financial benefits to the membership, and consequently how farmer-members’ incomes are affected by dairy policy reforms. Also provides key figures, strategic and structural features of four cases of European dairy cooperatives (*MD Foods, Campina Melkunie, Friesland Coberco, and Glanbia*) and discusses their responses to trade liberalization and policy reform in the dairy industry. The questions discussed are how these dairy cooperatives (1) respond to lower prices, (2) deal with a possible removal of reduction of quotas (3) finance growth, and (4) pass on desirable price signals to producers.

## 9.2 Ireland

129. BOYLE, G. E.(1998) *A Duality Approach to Testing the Economic Behaviour of Dairy Marketing Cooperatives: The Case of Ireland*. Department of Economics, National University of Ireland.

A study that outlines some notable developments in the behaviour and structural changes of dairy marketing cooperatives in Ireland caused by the imposition of the quota system. From 1987 onwards there has been a substantial widening in the ownership base of cooperatives through the public flotation of the cooperatives, and at the time of publishing this report there were three publicly-quoted milk processing companies in Ireland that have evolved from traditional cooperatives: the *Kerry Group*,

*Avonmore*, and the *Golden Vale Group*. It could be speculated that the introduction of production quotas influenced the economic behaviour of dairy cooperatives, facing a profit squeeze as the raw material was fixed in amount, were forced to diversify and hence to obtain additional capital. According to this report, the most efficient way to raise capital for cooperatives is through transformation into PLCs.

130. CÔTÉ, D., (2000) *Mobilizing the Co-operative Advantage-Canadian Agricultural Cooperatives in the 21<sup>st</sup> Century*. Canadian Co-operative Association

The booklet contains a section on the Irish dairy co-operatives, and discusses examples of four co-operatives which have undergone a conversion in the mid 1980s and became PLCs (*Kerry*, *Avonmore*, *Glanbia* and *Golden Vale*). *Glanbia* is still organised as a cooperative (55 percent owned by the co-operative, 11 by individual members and 34 by outside investors). *Kerry* has the same structure but the shares are divided in a different manner (38 percent to the co-operative, 30 to individual members, and 32 to outside investors), while forty six percent of *Golden Vale* is owned by members on individual basis and 54 percent of the shares are held by outside investors.

131. GUNNARSON, P. (1999) *Organisational Models for Agricultural Co-operatives: A Comparative Analysis of the Irish Dairy Industry*. Thesis, M.Sc. in Agricultural Economics, Department of Economics, Swedish University of Agricultural Sciences, Uppsala

A thesis that examines membership, marketing and management in four dairy co-operatives *Dairygold Co-operative Society Ltd.*, *Glanbia Group PLC*, *Kerry Group PLC*, *Golden Vale PLC*, and as an analytical framework uses agency theory and property rights theory.

132. Rural Industries Research and Development Corporation (2001) *International Trends in the Structure of Agricultural Cooperatives*. RIRCD Publication No.01/06

This article summarises the findings from the field trip to *Kerry Group PLC*, and discusses them in terms of growth strategy, capital management and governance and control.

133. van BEKKUM, O-F. NILSSON, J. (2000) *Liberalization of International Dairy Markets and the Structural Reform of European Dairy Cooperatives*. Paper presented to the Agribusiness Forum of the International Food and Agribusiness Management Association (IAMA), “*Consumers, Technology, and Environment: Creating Opportunity and Managing Risk*”, Chicago, June 24-28, 2000

An article that outlines the experience of *Glanbia* in responding to trade liberalization and policy reform, and categorises this Irish dairy cooperative as strongly vertically integrated, approaching a model of the investor-owned firm.

134. van BOEKEL, P. et al. (1987) Agricultural Co-operatives in the EU Member States. Ireland. In van Bekkum, O-F., van Dijk, G. (eds) *Agricultural Co-operatives in the European Union*. Van Gorcum, Assen, pp. 87-95

A study that focuses on dairy co-operatives and outlines the particular case of *Avonmore*, one of the largest dairy co-operatives in Ireland, with more than 13, 000 members. In 1988 *Avonmore* was reorganised as PLC.

### 9.3 United Kingdom

135. PARNELL, E. (2001) Supporting Rural Co-operation - The Role of the Plunkett Foundation. *Journal of Co-operative Studies*.34 (1), 8-24

A study that refers to the Rural White Paper announced in Autumn 2000 and outlines current efforts by the U.K. to promote more effective co-operative ventures in agriculture which include: (1) new forms of farmers' markets for direct selling of produce, (2) county food groups-jointly marketing specialty foods, (3) 'machinery rings' which provide computer-based arrangements for making the most profitable use of farm machinery and equipment, (4) forestry and woodland management cooperatives, and (5) tourism related activities based around the farmhouse-guesthouse. Lists some examples of mutually provided services in rural areas, such as rural credit unions, transport co-operatives, community-owned pubs, housing cooperatives, and community information services. Problems associated with co-operative development, are identified by the Plunkett Foundation as: (1) a lack of strategic perspective, little real planning and co-ordination, (2) the absence of accessible and properly informed advisers, (3) a lack of knowledge and awareness by professional advisers (accountants, lawyers and business consultants) of the principles and practice of co-operation, (4) the lack of accounting expertise particularly in relation to taxation benefits.

136. van BOEKEL, P. et al. (1987) Agricultural Co-operatives in the EU Member States. United Kingdom. In van Bekkum, O-F., van Dijk, G. (eds) *Agricultural Co-operatives in the European Union*. Van Gorcum, Assen, pp. 156-167

A descriptive paper that provides basic co-operative history, key figures on some of the biggest U.K. co-operatives, and co-operative institutional arrangements, the authors briefly outline three particular cases of agricultural co-operatives: *Anglian Produce Ltd.*- a potato marketing co-operative, *Midland Shires Farmers Ltd.* – a supply co-operative, and *Milk Marque Ltd.*, by far the largest co-operative in the UK.

## 9.4 Canada

137. CÔTÉ, D., (2000) *Mobilizing the Co-operative Advantage-Canadian Agricultural Co-operatives in the 21<sup>st</sup> Century*. Canadian Co-operative Association

A discussion of three case studies of Canadian agricultural co-operatives-*Agropur*, *Les-Appalaches* and *CUMA*. *Agropur* co-operative is characterised by vigorously applying the co-operative principles, and investing substantially in training for its members (more than 6,000 days/year). The members are informed and consulted on a regular basis about the strategic direction of the business, and there is a constant dialogue between members and managers. *Les Appalaches* is a diversified farm supply co-operative which has achieved excellent financial results for a number of years. It is renowned for its high performance as well as the development of its co-operative identity. Its strategic actions are based on the needs and expectations of the members/producers following regular consultations with them. In order to 'win' members' loyalty this co-operative constantly delivers a superior product, and its mission strategy and competitive advantages are all oriented towards excellence in order to improve producers' welfare. *CUMA* is a co-operative association with a minimum of five producers whose principle objective is to offer members a legal framework inside which they can benefit from agricultural equipment rentals.

- 138 FULTON, M. et al. (1995) Cooperative Growth: Is it Constrained? *Agribusiness*, 11 (3), 245-362

An analysis of the growth of three regional agricultural cooperatives in Canada- *Alberta Wheat Pool*, *Saskatchewan Wheat Pool*, and *Manitoba Pool Elevators*.

- 139 FULTON, M., GIBBINGS, J. (2000) *Response and Adaptation: Canadian Agricultural Co-operatives in the 21st Century*. Centre for the Study of Co-operatives, University of Saskatchewan

A report outlining the features of the *Niacam Co-operative* that developed from a traditional retail co-operative into a highly successful, super-local one, providing a variety of integrated agricultural services to the surrounding communities. A focus was on expanding the value of the co-operative to the membership by including members in decision-making. Elaborating on further patterns of the changes some agricultural co-operatives perform, the authors refer to *Prairie Centre Credit Union*, that is considered as a new model for the delivery of credit union products and services, and *CUMA(Cooperative d' Utilisation de Materiel Agricole)* a new model of a farm machinery co-operative, characterised by the flexibility necessary to meet diverse members equipment requirements, and a contractual relation between members and the co-operative which can minimize freerider problems. Finally, it discusses another case study of a Canadian agricultural co-operative - *Agricore*- as an example of the patterns of changes, where mergers and acquisition patterns of co-operatives change prompted by a number of the trends in the grain handling industry.

140. HARRIS, A., FULTON, M. (2000a) *The CUMA Farm Machinery Co-operatives*. Centre for the Study of Co-operatives, University of Saskatchewan

This paper describes details the structure of *CUMA* (*Coopérative d'Utilisation de Matériel Agricole*), which is structured to allow the sharing of individual machinery among sub-sets of members. The sharing of machinery is facilitated through the use of activity branches (such as hay baler, seed drill or harvester) and member contracts. As direct economic advantages to members-producers *CUMAs* offer cost savings and access to newer, more efficient equipment. Some estimates provided indicate that equipment and machinery costs can be lowered by nearly 70 percent for *CUMA* members. Initially *CUMA* was formed by dairy producers interested in lowering machinery costs, and the idea has generated much interest in co-operatively addressing other issues, such as the shortage of skilled farm labour, and this report provides a sketchy overview of *CUMOs*-farm labour co-operatives.

141. HARRIS, A., FULTON, M. (2000b) *Farm Machinery Co-operatives in Saskatchewan and Québec*. Centre for the Study of Co-operatives, University of Saskatchewan

A description of the structure and organisation of Saskatchewan farm machinery co-operatives (*CUMA*) and compares this structure with the *CUMAs* found in Québec. It also presents some guidelines and considerations necessary for forming successful farm-machinery co-operatives. Argues that a farm-machinery co-operative can provide farmers with a number of benefits including: (1) lower machinery costs, (2) greater efficiency, (3) access to new technology, (4) access to a greater pool of knowledge and resources, and (5) price discounts on inputs. Critical success factors for formation of a farm-machinery co-operative are identified as (1) compatibility, (2) clear economic benefits, (3) appropriate levels of investment, (4) communication and planning, (5) accurate records, (6) written arrangements.

142. HARRIS, A., FULTON, M. (2000c) *Farm Machinery Co-operatives: An Idea Worth Sharing*. Centre for the Study of Co-operatives, University of Saskatchewan

Documentation of the results of a simple financial model developed to compare costs of owning selected types of farm machinery as individual farmers and as members of a farm machinery co-operative (*CUMA*). Key results from the comparison indicate that (1) total annual costs are 36 percent lower for the co-operatives members as compared to the individual owner, (2) estimated overall savings in total annual machinery costs are 33% for co-operatives members versus individual farmers. This report also provides a detailed cost comparison of the selected machines.

## 9.5 USA

143. BLACK, J. R., BARNETT, B. J., HU, Y.(1999) Cooperatives and Capital Markets: The Case of Minnesota-Dakota Sugar Cooperatives. *American Journal of Agricultural Economics*. 81 (5), 1240-1246

This study describes the potential use of new risk-sharing instruments by three sugar-beet processing cooperatives in Minnesota and North Dakota - *American Crystal Sugar Company, Southern Minn, Min-Dak*. Illustrates the level of systematic yield risk facing these three cooperatives and outlines potential for the cooperatives to act as an insurance company providing tailored individual crop yield insurance. The study draws on information from focus groups with cooperative members and processing plant managers. Members state the risk-management objectives such as to (1) capture benefits of reduced transaction costs, (2) use information maintained by cooperatives regarding soil and management practices in order to minimise asymmetry of information, and adverse selection and moral hazard, and (3) develop tailored crop insurance products. Two alternatives under consideration for crop insurance design and delivery by members of these three cooperatives are that cooperatives can form an independent crop insurance agency that sell crop insurance policies, or cooperatives may create an insurance company that would write federally reinsured crop insurance policies.

144. FULTON, M. et al. (1995) Cooperative Growth: Is it Constrained? *Agribusiness*, 11 (3), 245-362

An analysis of the growth of four regional agricultural cooperatives in the United States - *Harvest State Cooperatives, Land O'Lakes., Farmland Industries, Inc., and CENEX, Inc.*

145. FULTON, M., GIBBINGS, J. (2000) *Response and Adaptation: Canadian Agricultural Co-operatives in the 21<sup>st</sup> Century*. Centre for the Study of Co-operatives, University of Saskatchewan

A review and analysis of *U.S. Premium Beef* as an example of co-operative transformation with a focus on a single activity, growing importance of non-geographical factors, importance of coordination and information in providing extra value in the system, and strategic alliance with a large co-operative. Outlines key features of this co-operative which was established in December 1997, and by July 2000 already included over 1,350 producers from 33 states who had marketed more than one million cattle through the co-operative. Establishment of a purchasing co-operative - *Restaurant Service Inc.* is considered a new model for managing supply and purchasing arrangements, and as a co-operative model incorporating mechanisms of reducing costs involved in supply chain management. This report also includes segments on: *Tri Valley Growers* - the largest multi-commodity co-operative in the U.S.; *American Crystal Sugar* as the first New Generation Co-operative. *United Country Brands* is an example of a multiple string co-operative formed through merger and acquisition, while *United Sugar Corporation* is a non-geographically defined

corporation comprised of co-operatives and non-cooperative enterprises, and highly focused on an integrated single activity.

146. JACOBSON, R., CROPP, R. (1995) *Dairy Cooperatives and Their Role in the United States*. University of Wisconsin Center for Cooperatives.  
Available: Internet <http://www.wisc.edu/uwcc/staff/cropp/dairycp.html>

A review of the top fifty dairy cooperatives in the U.S. and provides some information about the number of members, member milk volume, and outlines activities of dairy cooperatives, and trends in net income of dairy cooperatives. The major challenges confronting dairy cooperatives continue to be those of operating efficiently and resolving membership problems. The trends towards fewer and larger dairy farms are forcing dairy cooperatives to find new ways of treating their members equitably not equally. The paper also highlights some activities of dairy cooperatives to influence policy makers, and primary areas of concern include import quotas, dairy prices support food safety concerns, and cooperative anti-trust and tax issues.

147. OEHLER, S. (1996) Largest U.S. Agricultural Co-op Markets to and for Producers. *Agri Marketing* 34 (6)

A description of the history, and current structure and performances of *Farmland Industries Inc.*, which is the largest farmer-owned agricultural co-operative in the US. The paper separately reviews divisions of Farmland Industries Inc.: Farmland's Ag Input Businesses which manufacture and distribute the crop nutrients and crop protection products, foodstuffs, and petroleum-base products; the Meat and Livestock Businesses which assist producers in beef in pork industry, and the Grains and Grain Processing Businesses which help producers in processing and marketing of their grain-production.

148. Rural Industries Research and Development Corporation (2001) *International Trends in the Structure of Agricultural Cooperatives*. RIRCD Publication No.01/06

A paper that includes segments on *Land O'Lakes Inc.*, a traditionally structured cooperative, and a few examples of NGCs - *American Crystal Sugar Company*, *Val Ad Co*, *Golden Oval Eggs*, *Dakota Growers Pasta Company*, as well as case studies of *Dairy Farmers of America*- a big dairy cooperative and *Farmland Industries* as one of the largest farmer-owned cooperatives.

149. USDA (1994) *Marketing Operation of Dairy Cooperatives*. Agricultural Cooperative Service, ACS Research Report 133, USDA

A detailed description and variety of information about 265 dairy cooperatives in the U.S. The following aspects of the dairy cooperatives are presented: the cooperative industry profile, plant operations, dairy products marketed, methods of pricing milk to pay member-producers, and finally pricing-incentives programs to stimulate members to produce high-quality milk at the time and volume appropriate for cooperatives. The prevailing method of paying for members' milk by the cooperatives is to adjust the milk

price for both butterfat and other components. Milk quality is the primary driving factor in the overwhelming majority of price incentive programs offered by cooperatives.

150. USDA (1997) *Cooperatives in a Changing Global Food System*. Rural Business Cooperative Service, RBS Research Report 157

A review of international involvement of three farmer cooperatives-*Land O'Lakes*, *Harvest States Cooperatives*, and *Farmland Industries Inc.*

## 9.6 Scandinavia/Denmark

151. FULTON, M., GIBBINGS, J. (2000) *Response and Adaptation: Canadian Agricultural Co-operatives in the 21<sup>st</sup> Century*. Centre for the Study of Co-operatives, University of Saskatchewan

Reports of the dairy co-operative *MD Foods (Mejeriselskabet Denmark)* as an example of a truly international agriculture co-operative.

152. HOBBS, J. E. (2001) *Against All Odds: Explaining the Exporting Success of the Danish Pork Co-operatives*. Centre for the Study of Co-operatives, University of Saskatchewan

This study provides some information about a history of the co-operative movement in Danish agriculture, and includes co-operative profiles of three producer-owned co-operatives in the hog industry – *Danish Crown*, *Steff-Houlberg*, and *Tican*.

153. ICA (International Co-operative Alliance) *Denmark: The Agricultural Cooperatives in Denmark*. Available: Internet  
<http://www.wisc.edu/uwcc/icic/orgs/ica/mem/coutry/denmark/agcoops.html>

A historical overview of the agricultural cooperatives in Denmark, together with a brief segment on the definitions and justifications for establishing cooperatives as recorded within the theoretical literature. Also presents the capital structure and decision process in Danish cooperatives.

154. van BEKKUM, O-F. NILSSON, J. (2000) *Liberalization of International Dairy Markets and the Structural Reform of European Dairy Cooperatives*. Paper presented to the Agribusiness Forum of the International Food and Agribusiness Management Association (IAMA), “*Consumers, Technology, and Environment: Creating Opportunity and Managing Risk*”, Chicago, June 24-28, 2000

A study of *MD Foods* as ‘ideal entrepreneurial’ co-operative which is both horizontally and vertically integrated, while in terms of internal structure (pricing, finance and voting) it is a collectively structured cooperative .

155. van BOEKEL, P. et al. (1987) Agricultural Co-operatives in the EU Member States. Sweden/Denmark. In van Bekkum, O-F., van Dijk, G. (eds) *Agricultural Co-operatives in the European Union*. Van Gorcum, Assen, pp. 41-51; 145-156

The basic history of co-operatives in Denmark, and provides a summary of *MD Foods* and *Danish Crown*, which came into existence by merging of co-operatives. *MD Foods* is also well known for its international orientation, where this co-operative derives more than 60 percent of its turnover overseas. *Odal*, a Swedish co-operative also emerged as a result of merging four large farm supply and grain co-operatives in Sweden.

## 9.7 The Netherlands

156. FULTON, M., GIBBINGS, J. (2000) *Response and Adaptation: Canadian Agricultural Co-operatives in the 21<sup>st</sup> Century*. Centre for the Study of Co-operatives, University of Saskatchewan

Exploration of a 30-year history of *Rabobank* and outlines its current management structure, and a new strategy in terms of international expansion and focusing even more specifically on its core customers.

157. Rural Industries Research and Development Corporation (2001) *International Trends in the Structure of Agricultural Cooperatives*. RIRCD Publication No.01/06

Research on *Campina Melkunie* - the fifth largest dairy company in Europe, and *Rabobank* – one of the world's biggest banks in the food and agricultural industries.

158. van BEKKUM, O-F. NILSSON, J. (2000) *Agenda 2000 and Structural Changes in European Dairy Cooperatives*. Paper presented to the 4<sup>th</sup> International Conference on Chain Development in Agribusiness, and the Food Industry, Wageningen, 25-26 May 2000

An examination of the responses of European dairy cooperatives to the Common Agricultural Policy (CAP), and evaluates cooperative strategies and structures in relation to Agenda 2000 and hypothetical quota abolition. Generally, authors identify two options – a value-added strategy and a cost price reduction strategy- in responding to the anticipated changes. Case studies of two Netherlands-based dairy cooperatives - *Campina Melkunie* and *Friesland Coberco Dairy Foods* - are presented, and reviewed by applying a transaction cost and agency theory framework.

159. van BEKKUM, O-F. NILSSON, J. (2000a) *Liberalization of International Dairy Markets and the Structural Reform of European Dairy Cooperatives*. Paper presented to the Agribusiness Forum of the International Food and Agribusiness Management Association (IAMA), “*Consumers, Technology, and Environment: Creating Opportunity and Managing Risk*”, Chicago, June 24-28, 2000

This article discusses the responses by European dairy cooperatives to trade liberalization and policy reform, and among other case studies included two Dutch dairy cooperatives - *Friesland Coberco Dairy Foods* and *Campina Melkune*.

160. van BOEKEL, P. et al. (1987) *Agricultural Co-operatives in the EU Member States. The Netherlands*. In van Bekkum, O-F., van Dijk, G. (eds) *Agricultural Co-operatives in the European Union*. Van Gorcum, Assen, pp. 109-119

Apart from a general overview of co-operatives in Dutch agriculture, this study presents five case studies: *Amalthea* - a small goat milk co-operative as an example of a new co-operative; *VTN/The Greenery* and *Dumeco* as an example of concentration in the co-operative sector, and *Campina Melkunie* and *Friesland Dairy Foods*, as examples of new ways in raising capital, such as an introduction of tradeable bonds or transformation of members accounts into different types of shares.

## AUTHOR INDEX

- Anderson, B. L., 49  
Anderson, K., 97  
Australian Agricultural Council.  
    Working Party on Agricultural  
    Co-operatives, 39
- Bailey, M., 63  
Barnett, B. J., 64, 143  
Barton, D. G., 1, 2, 25, 40  
Bhuyan, S., 52  
Black, J. R., 64, 143  
Boehlje, M., 105, 125  
Boland, M., 25  
Boyle, G. E., 41, 129  
Brown, R. B., 65  
Bureau of Industry Economics, 93  
Buschette, P., 78
- Carley, D. H., 56  
Carter, D., 79, 80  
Castanias, R., 30  
Caswell, J. A., 42  
Cobia, D. W., 1, 2, 6, 66  
Coffey, J. D., 109  
Condon, A. M., 3  
Cook, M. L., 4, 30  
Cooney, A., 99  
Côté, D., 110, 130, 137  
Cotterill, R. W., 5, 42  
Cropp, R., 6, 67, 85, 146  
Curry, D., 83
- Declkerck, F., 48, 123
- Egerstrom, L., 86, 111  
Eitzen, D. S., 53  
Evers, F. T., 62
- Faber, D., 111  
Farrell, T. C., 94  
Featherstone, A. M., 40  
Fletcher, S. M., 56  
Foxall, G. R., 54, 95  
Fulop, L., 96  
Fulton, M., 7, 43, 68, 74, 75, 97, 99,  
    100, 112, 138, 139, 140, 141, 142,  
    144, 145, 151, 156
- Gasson, R., 55  
Gertler, M., 116  
Gibbings, J., 112, 139, 145, 151, 156  
Ginder, R., 85  
Glasbergen, P., 117  
Goreham, G. A., 71  
Gray, T. W., 23  
Groves, F., 8  
Gunnarson, P., 26, 131
- Hamm, L. G., 24  
Hanson, M. J., 98  
Harris, A., 74, 140, 141, 142  
Helm, F. C., 9  
Helmberger, P., 10, 11  
Hind, A. M., 27, 44  
Hobbs, J. E., 99, 152  
Holmes, M., 84  
Holmund, M., 100  
Hoyt, A., 12  
Hu, Y., 64, 143
- ICA, 118, 153  
Ingalsbe, G., 6
- Jacobson, R., 146
- Katz, J. P., 45  
Kelly, J., 96  
Kibe, T. F., 81  
King, R. P., 59  
Kingwel, R., 72  
Knutson, R. D., 46  
Kotov, I., 69  
Kyriakopoulos, K., 28, 29, 113, 124, 126
- Lang, M., 30, 119  
Leistritz, F. L., 87  
Lerman, Z., 47  
Le Vay, C., 13  
Liebrand, C. B., 101  
Ling, K. C., 101  
Livingston, K., 81  
Loewe, P., 90  
Lorendahl, B., 120  
Lusk, J., 25

- Matthey, H., 102  
Mauget, R., 48, 123  
McBride, G., 14  
McLaughlin, P., 31  
Merret, C. D., 65, 67, 82, 86, 88, 97, 98,  
108, 111  
Misra, S., K., 56  
Mulford, C. L., 51  
Murray, G. C., 15
- Nadeau, E. G., 89  
Nilsson, J., 70, 114, 124, 126, 128,  
133, 154, 158, 159
- OECD, 121  
Oehler, S., 147  
Olson, F., 71
- Parliament, C., 47  
Parnell, E., 122, 135  
Peterson, H. C., 49  
Plunkett, B., 72
- Reynolds, B. J., 23, 50  
Rhodes, V. J., 16  
Rogers, D. L., 57, 61, 62  
Rogers, R., 101,  
Royer, J., 101, 102  
Rural Industries Research and  
Development Corporation, 32, 103,  
104, 132, 148, 157
- Schrader, L. F., 17, 105, 125  
Schroeder, T. C., 40  
Sell, R. S., 87  
Sexton, R. J., 18
- Shaffer, J. D., 19  
Siebert, J., 58  
Sporleder, T. L., 63, 73  
Staatz, J. M., 20, 21, 22  
Stefanson, B., 74, 75  
Salla Holms, M., 83
- Torgerson, R. E., 23  
Tozer, P. R., 94  
Trexter, D. D. 33, 59
- USDA, 3, 5, 19, 21, 22, 34, 35, 36, 37,  
60, 91, 115, 149, 150
- van Bekkum, O-F., 29, 126, 127, 128,  
133, 134, 136, 154, 155, 158, 159,  
160  
van Boekel, P, 134, 136, 155, 160  
van der Sluis, E, 85, 90  
van Dijk, G., 28, 124, 126, 127, 134,  
136, 155, 160  
Vanderburg, J. M., 106
- Walsh, L., 59  
Walzer, N., 67, 84, 86, 88, 97, 98, 108,  
111  
Waner, J., 76  
Warner, W. K., 61  
Warren, R. D., 51, 62  
Wells, M., 38  
Welsh, R., 107  
Williams, C., 108  
Wilson, C. 89  
Wolf, C. A., 24
- Yetley, M. J., 51
- Zeuli, K. A., 77, 91, 92

## SUBJECT INDEX

- Agency theory, 26, 113  
*Agropur*, 137  
*Anglian Produce Ltd*, 136  
*Agricore*, 139  
Agricultural co-operatives  
    benefits, 1, 16, 17, 18, 22, 31, 39, 52, 54, 55  
    definitions, 1, 8, 9, 13  
    objectives, 5, 9, 10, 13, 27, 41, 42, 62  
    principles, 2, 8, 9, 12, 14, 58  
    roles, 19, 24, 36, 46, 50, 55, 118  
    typology, 6, 9, 15, 26, 30, 110  
*Alberta Wheat Pool*, 138  
*American Crystal Sugar Company*, 143, 145, 148  
*Avonmore*, 48, 129, 130, 134  
  
*Campina Melkunie*, 28, 157, 158, 159, 160  
*CENEX, Inc.*, 144  
Collaborative marketing groups, 103  
Commodity co-operatives, 35, 36, 39  
Comparisons with non-co-operative businesses, 1, 8, 13, 14, 16, 21, 22, 41, 44, 45, 47, 65, 115  
Communication, 54, 59, 122  
Co-operatives and development, 38, 118, 120  
Co-operative arrangements, 93, 95, 96, 98, 101, 102, 104, 105, 106, 107, 108  
Co-operatives in the 21<sup>st</sup> century, 110, 111, 112  
Co-operative theory, 3, 5, 13, 20, 23, 24, 42  
*CUMA.*, 137, 139, 140, 141, 142  
  
*Dakota Growers Pasta Company*, 92, 148  
Dairy co-operatives, 10, 24, 26, 30, 41, 56, 60, 101  
Dairy co-operatives (US), 146, 148, 149  
*Dairygold Co-operative Society Ltd.*, 48, 131  
*Danish Crown*, 48, 155  
*Danish Pork Co-operative*, 152  
  
EC, 41, 48, 123-128, 153  
Eco-cooperatives, 117, 121  
Education, 59, 110, 137  
Effectiveness of co-operatives, 11, 51  
Environmental management, 116  
Equity redemption, 37  
Evolution, 109, 110, 112, 113, 114, 119  
  
*Farmland Industries, Inc.*, 115, 144, 147, 148, 150  
Farm machinery co-operatives, 9, 39  
    *See also CUMA*  
Farm supply, 9, 30, 37, 39, 106, 109  
Financing, 26, 27, 28, 30, 32, 48, 126  
*Friesland Coberco Dairy Foods*, 158, 159, 160  
Fruit and vegetable processing cooperatives, 20, 38, 52  
  
Game theory, 18, 20, 23  
*Glanbia*, 130, 131, 133  
*Golden Oval*, 78, 148  
*Golden Vale Group*, 129, 130, 131  
Grain co-operatives, 35, 37, 106  
Growth, 43  
  
*Harvest State Cooperatives*, 144  
  
*Kerry group*, 48, 129, 130, 131, 132  
  
*Land O'Lakes.*, 115, 144, 148, 150  
*Les Appalaches*, 137  
Life cycle 4, 13, 112  
  
Managers, 52, 62  
*Manitoba Pool Elevators*, 138  
Marketing co-operatives, 9, 23, 30, 35, 39, 42, 55, 94, 102  
*MD Foods*, 151, 154, 155  
Members' attitudes, 52, 58  
Members' participation, 53, 55, 57, 59, 60, 61  
Members' satisfaction, 56  
*Midland Shires Farmers Ltd.*, 136  
*Milk Marque Ltd*, 136  
  
Neo-institutional economics, 4  
Networks, 93, 96, 100

New Generation Co-operatives  
case studies, 78-84  
features, 68, 69, 70, 72, 75, 88  
impact on the community, 74, 85, 86, 87,  
89, 90, 91, 92, 111  
members' characteristics, 66, 71  
success factors, 66, 67, 74, 76, 88,  
106  
*Niacam Co-operative*, 139

Organisational models, 26, 29, 32

Performances, 33, 40, 44, 46, 47, 48,  
51

*Prairie Centre Credit Union*, 139

Processing co-operatives, 25

Promoting co-operative development,  
38, 54, 122

Property rights, 3, 4, 7, 23, 26, 50, 112

Public goods theory, 23

*Rabobank*, 156, 157

Risk management, 63, 64, 73, 77

*Saskatchewan Wheat Pool*, 138

Service co-operatives, 39

Size, 40, 43

Strategic alliances, 94, 100, 104, 106, 108

Strategy, 29, 33, 41, 45, 48, 49

Structure, 32, 48, 113, 115

Success factors, 11, 39, 92, 106, 120

Transaction cost economics, 22, 23, 26

*U.S. Premium Beef*, 145

Value-added business, 97, 98, 99

Vertical integration, 101, 107

Voting and representation systems, 34