

10-2002

Effect of Watershed Subdivision on SWAT Flow, Sediment, and Nutrient Predictions

Brent M. Hueth
Iowa State University

Philippe Marcoul
Iowa State University

Follow this and additional works at: http://lib.dr.iastate.edu/card_workingpapers



Part of the [Agricultural and Resource Economics Commons](#), [Agricultural Economics Commons](#), and the [Industrial Organization Commons](#)

Recommended Citation

Hueth, Brent M. and Marcoul, Philippe, "Effect of Watershed Subdivision on SWAT Flow, Sediment, and Nutrient Predictions" (2002). *CARD Working Papers*. 346.
http://lib.dr.iastate.edu/card_workingpapers/346

This Article is brought to you for free and open access by the CARD Reports and Working Papers at Iowa State University Digital Repository. It has been accepted for inclusion in CARD Working Papers by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Effect of Watershed Subdivision on SWAT Flow, Sediment, and Nutrient Predictions

Abstract

This paper identifies market and commodity characteristics that seem to support successful cooperative bargaining in markets for farm output. Bargaining is not just about increasing prices paid to farmers; indeed, although there is very little empirical research that addresses the issue, what evidence does exist suggests that cooperative bargaining has very little direct influence on price. Nevertheless, the price negotiation process may be useful in itself as a form of price discovery in markets where there is uncertainty about market supply and demand conditions, and bargaining associations can play an important role in ensuring contract reliability. These and other benefits must be weighed against the organizational and ongoing operational costs of a formal bargaining association when considering whether bargaining is appropriate for a given market environment. Even when the aggregate net benefits associated with bargaining are positive, the distribution of benefits across the various market participants may have an important influence on the political feasibility of bargaining.

Keywords

agricultural markets, cooperative bargaining, imperfect competition

Disciplines

Agricultural and Resource Economics | Agricultural Economics | Industrial Organization

Observations on Cooperative Bargaining in U.S. Agricultural Markets

Brent Hueth and Philippe Marcoul

Working Paper 02-WP 316
October 2002

Center for Agricultural and Rural Development
Iowa State University
Ames, Iowa 50011-1070
www.card.iastate.edu

Brent Hueth and Philippe Marcoul are assistant professors of economics at Iowa State University

Supported in part by the Agricultural Marketing Resource Center, Iowa State University.

This publication is available online on the CARD website: www.card.iastate.edu. Permission is granted to reproduce this information with appropriate attribution to the authors and the Center for Agricultural and Rural Development, Iowa State University, Ames, Iowa 50011-1070.

For questions or comments about the contents of this paper, please contact Brent Hueth, 371 Heady Hall, Iowa State University, Ames, IA 50011-1070; Ph: 515-294-1085; Fax: 515-294-0221; E-mail: bheuth@iastate.edu.

Iowa State University does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, sex, marital status, disability, or status as a U.S. Vietnam Era Veteran. Any persons having inquiries concerning this may contact the Office of Equal Opportunity and Diversity, 1031 Wallace Road Office Building, Room 101, 515-294-7612.

Abstract

This paper identifies market and commodity characteristics that seem to support successful cooperative bargaining in markets for farm output. Bargaining is not just about increasing prices paid to farmers; indeed, although there is very little empirical research that addresses the issue, what evidence does exist suggests that cooperative bargaining has very little direct influence on price. Nevertheless, the price negotiation process may be useful in itself as a form of price discovery in markets where there is uncertainty about market supply and demand conditions, and bargaining associations can play an important role in ensuring contract reliability. These and other benefits must be weighed against the organizational and ongoing operational costs of a formal bargaining association when considering whether bargaining is appropriate for a given market environment. Even when the aggregate net benefits associated with bargaining are positive, the distribution of benefits across the various market participants may have an important influence on the political feasibility of bargaining.

Keywords: agricultural markets, cooperative bargaining, imperfect competition.

OBSERVATIONS ON COOPERATIVE BARGAINING IN U.S. AGRICULTURAL MARKETS

1. Introduction

Cooperative bargaining associations are an institutional feature of some U.S. agricultural markets. Such associations typically provide a wide variety of services to member growers, but chief among them is price and contract negotiations with various kinds of market intermediaries. Historically, formalized cooperative bargaining as it is currently practiced is a relatively recent phenomenon that began in the early 1950s (Marcus 1994). Passage of the Agricultural Fair Practices Act (AFPA) in 1967 provided explicit legislative support for the formation of bargaining cooperatives, and subsequent legislation in some states has provided additional (in some cases stronger) support.

Although cooperative bargaining occurs in a significant number of U.S. commodity sectors, agricultural economists have paid surprisingly little attention to the economic and market implications of bargaining. Helmberger and Hoos (1965) provide a seminal analysis of bargaining in processing fruit and vegetable markets, but since then only a handful of studies have further examined the issue. Moreover, recently undertaken research is largely descriptive of existing bargaining institutions and falls short in analyzing the conditions that seem to support successful bargaining activity or the potentially unique role bargaining associations play in facilitating market coordination and establishing favorable terms of trade for farmers.

This omission is unfortunate given the current interest in cooperative bargaining within various commodity sectors that currently function without formal bargaining.¹ Contractual mechanisms are substituting for “markets” as a means of coordinating farm-to-market transactions in a variety of traditional commodities, and the institutions for regulating trade under contract are still very much under development in these markets. Bargaining is viewed by some as a potential substitute for direct governmental intervention.² However, the structural characteristics of traditional commodity markets

differ in important ways from markets where bargaining has traditionally functioned, and it is not clear whether bargaining represents a “good fit” for these markets.

The purpose of this paper is to summarize the incidence of cooperative bargaining in U.S. agricultural markets and to analyze the set of factors that seem to support successful bargaining. A number of informal hypotheses are derived, and we suggest data needs for testing these hypotheses. Additionally, we analyze the economic significance of state and federal bargaining legislation and suggest a potentially important role for bargaining associations (a mechanism for information sharing) that has gone mostly unnoticed in previous research. We begin with some background on bargaining activity in U.S. agricultural markets.

2. Cooperative Bargaining in U.S. Agricultural Markets

2.1. The Incidence of Bargaining

Iskow and Sexton (1992) conducted a comprehensive survey of all active bargaining associations in markets for processing fruits and vegetables. The authors collected information from 25 individual associations (from a universe of 29), representing 24 different commodities across nine states. The associations were about evenly split between fruit and vegetable commodities and were located predominantly in Pacific Coast states. The authors cite earlier surveys conducted in the 1970s and 1980s that report similar total numbers of processing fruit and vegetable bargaining associations. More recently, the U.S. Department of Agriculture (2001) lists 12 associations that collectively bargain for 14 total processing fruit and vegetable commodities, suggesting a possible decline in bargaining activity in recent years.³ Table 1 summarizes the commodities and states where bargaining occurs according to this list.

While most bargaining occurs in processing fruit and vegetable markets, sugarbeets and dairy are notable exceptions. According to Jacobs (1992), there were 20 distinct sugarbeet bargaining associations, which collectively accounted for 69 percent of total annual production in 1990.⁴ Similarly, 226 cooperative firms accounted for 83 percent of all milk marketings to processing plants and dealers in 1997, and almost three-quarters of these firms (representing 25 percent of milk marketings) were pure bargaining cooperatives (U.S. Department of Agriculture 2000). Finally, note that

TABLE 1. Summary of commodities and states where bargaining occurs

Association	Commodities	State
Apricot Producers of CA	Apricot	CA
CA Beet Growers Assoc.	Sugarbeet	CA
CA Canning Peach Assoc.	Cling peach	CA
CA Pear Assoc.	Bartlett pear	CA
CA Tomato Growers	Processing tomato	CA
Olive Growers Council	Olive	CA
Prune Bargaining Assoc.	Prune	CA
Raisin Bargaining Assoc.	Raisin	CA
Potato Growers of ID	Potato	ID
ME Ag. Bargaining Council	Potato, Peas, Barley, Flax	ME
MI Ag. Coop. Mktg. Assoc.	Processing apples, plums, red tart cherries, asparagus, feeder pigs	MI
Allied Federal Coop.	Raw milk	Multistate
Hazelnut Growers	Hazelnut	OR
Nyssa-Nampa Beet Growers	Sugarbeet	OR
Perennial Ryegrass Assoc.	Perennial ryegrass	OR
WA-OR Canning Pear Assoc.	Bartlett pear	OR-WA
WI Coop. Milk Producers	Raw milk	WI

Source: U.S. Department of Agriculture 2001.

Table 1 includes a single perennial ryegrass bargaining association and a hazelnut association, both located in Oregon.

In principle, there is no reason why bargaining couldn't take place in all commodity sectors; however, as evident from Table 1 and the discussion in this section, bargaining occurs in a quite limited subset of commodities. So, what is it that allows bargaining associations to serve a useful role in the previously mentioned sectors? We will not address this question in detail just yet, but it will help at this point to note a few common characteristics of the markets where bargaining is observed.

2.2 Common Characteristics of Markets where Bargaining Occurs

Ideally, we would like to identify characteristics of the market environment for each commodity that relate to underlying “economic primitives.” These include primarily technological, preference, and regulatory structures that may be taken as entirely exogenous. For example, Helmberger and Hoos (1965) note that “Cooperative bargaining can be an effective tool for certain markets and for certain farm products. *The necessary conditions apply more or less to farm markets in such commodities as processing fruits and vegetables, sugarbeets, and fluid milk*” (emphasis added).

While apparently true, the statement fails to identify the specific underlying “necessary conditions” that are satisfied in these specific markets—information that is crucial in order to evaluate whether bargaining is appropriate for markets other than those in which it is currently observed.

There is considerable variation across commodities and regions with respect to the economic environment in which farmers and intermediaries operate, making it difficult to identify a set of characteristics that are universally common in the markets where bargaining is observed. Nevertheless, below we note four relevant features of the previously listed commodities that do seem to be common across each set of markets.

First, in all the commodities discussed earlier, possibly with the exception of dairy, formal contract arrangements represent the primary means of coordinating exchange between farmers and intermediaries. Thus, it seems that bargaining associations may play an important role in regulating contract terms between growers and handlers. A second rather obvious point is that bargaining associations are observed exclusively in markets for processed output. This point is of course related to the first, since most processed commodities are characterized by significant contracting between farmers and processors. Nevertheless, we’ll argue that there may be reasons why bargaining associations are useful in markets for processed output, independent of their role in regulating contracts. Third, most of the commodities for which bargaining occurs (with the exception of dairy and sugarbeets) exhibit a high degree of geographic concentration; in particular, production occurs mostly in Pacific Coast states, and this area accounts for the majority of production (for each commodity listed) nationwide. Finally, because growers in each market are dependent on a relatively small number of buyers (in some cases just one) in

their respective markets, and opportunities for on-farm storage are limited (because each of the commodities is highly perishable), there is a high degree of “relationship specificity” between grower and intermediary (alternatively, growers have limited “outside options”).

We will come back to each of these points after analyzing the economic dimensions of bargaining, but first we briefly describe the regulatory environment in which bargaining occurs.

2.3. Federal and State Bargaining Legislation

As alluded to in our introduction, various pieces of federal and state legislation govern bargaining activities between growers and intermediaries. In this section, we briefly discuss a number of legal issues that have an important influence on the bargaining process and indicate how state and federal legislation affects this process.⁵

The Capper-Volstead Act of 1922 provides basic protection for growers to collectively negotiate on price, and the AFPA (mentioned in the introduction) contains provisions to prohibit intermediary firms from explicitly discouraging cooperative bargaining (or formation of any other kind of producer association) by growers. AFPA provisions cover all the obvious means for processors to discourage membership (such as forceful coercion or intimidation, bribing or other inducement, and false reporting) but are trumped to a considerable extent by an additional “disclaimer” clause, which reads as follows: “Nothing in this Act shall prevent handlers and producers from selecting their customers and suppliers for any reason other than a producer’s membership in or contract with an association of producers, nor require a handler to deal with an association of producers.”

According to Marcus (1994), this disclaimer has had profound implications for the applicability of AFPA in actual bargaining. In particular, the disclaimer explicitly allows intermediaries to refuse to do business with a grower for any reason other than membership in a producer association. One can imagine (and anecdotal evidence suggests) that it is easy for intermediaries to create a pretext for not dealing with individual growers based on something other than association membership. Furthermore, the disclaimer explicitly allows handlers to ignore or refuse to bargain with an association of producers.

This second point has led a number of states to adopt legislation requiring “good faith” bargaining, meaning that intermediaries must negotiate with an association. Of course, implementing legislation of this sort requires some definition of what constitutes an “association,” as presumably any such legislation is not intended to require that intermediaries bargain with every group of producers that might have an interest in bargaining. For this reason, the states that have adopted bargaining legislation have all included some minimum membership requirement in order for a group of producers to constitute a bargaining association.

“Good faith” bargaining is a rather vague term, and it is not immediately apparent how such a provision can have any meaningful effect. In practice, *earnest* good faith bargaining is enforced through some form of mediation or arbitration provision that is triggered when the relevant parties fail to reach agreement. The specific procedures for dispute resolution, which differ across states, are summarized in Table 2 along with various other important features of state bargaining laws.

All but two states with bargaining legislation contain a provision that calls for “good faith” bargaining with state-recognized bargaining organizations on the part of intermediaries. Four of these states also provide for some form of mediation. In California, for example, there is a formal “conciliation” procedure involving a third party (a regional office of the American Arbitration Association), which is coordinated by the California Department of Food and Agriculture. Although the conciliator is without binding arbitration authority, this mechanism has apparently functioned quite successfully in all cases (eight as of 1994) where normal bargaining procedures have

TABLE 2. Summary of provisions in state bargaining legislation

States	“Good Faith”	Mediation	Binding Arbitration	Fee Assessment
California	x	x		x
Maine	x	x	x	x
Michigan	x		x	
Minnesota	x	x		
New Jersey				x
Ohio	x			
Washington	x			
Idaho				x

Source: Torgerson 1998.

resulted in a stalemate.⁶ Only two states (Maine and Michigan) have legislation with provisions for binding arbitration.

The final column in Table 2 refers to whether or not state legislation mandates automatic deduction of member fees from intermediary payment at the request of the association. For simple “transaction cost” reasons, this is possibly an efficient means of paying the association. Otherwise, the association would have to set up an accounting and payment collection infrastructure that would duplicate an infrastructure already in place with intermediaries. Alternatively (or possibly additionally), automatic fee deduction may mitigate commitment difficulties in the association/grower relationship.

Each of the provisions in Table 2 is important to the existence of bargaining. Not surprisingly, only a single association in Table 1 is in a state without bargaining legislation. A number of efforts have been made (most recently in 1999 by Rep. Nancy Kaptur of Ohio) to include many of these provisions in federal legislation as an amendment to AFPA; in all cases, the efforts have failed.⁷

3. The Role of Cooperative Bargaining in Agricultural Markets

During the formative years of bargaining association development, there clearly was a hope and expectation among participants that bargaining could result in significantly higher prices for farm output. Actual experience with bargaining has indicated otherwise. Difficulties in sustaining grower loyalty to an association, and in controlling non-member production, severely constrain the ability of an association to negotiate significant price increases with processors and handlers of farm output. Nevertheless, the persistence of bargaining associations suggests that these organizations serve some useful function in the markets where they are present. In this section, we identify a number of potential functions and discuss their relative importance.

First, bargaining associations act in some ways like a “trade association” by sponsoring industry-wide promotional activities, participating in state and federal lobbying efforts, and collecting industry-wide market data. Although such activities may be viewed as a useful service by farmers and other industry participants, there is no reason they need to be accomplished specifically by a bargaining association. These types of services are presumably secondary relative to activities associated with direct price negotiation.

Although some growers may be sufficiently large and well financed to have dedicated legal council, the typical grower usually is not. As a result, growers who produce under contract are likely to benefit considerably from the availability of association legal support.⁸ Moreover, given that such services are likely to be used only sporadically by individual growers, there are probably economies of scale from joint funding of such a service. The fact that bargaining associations exist primarily in markets where contract production is the dominant form of farm-to-market coordination—and hence where legal support is of great importance—is consistent with this observation.

Knoeber (1983) argues that bargaining associations can play an important role in ensuring contract reliability between growers and intermediaries. Suppose a grower and intermediary form a contract for future delivery of produce at some agreed price (or pricing mechanism). As the delivery date approaches, unanticipated opportunities for purchase (in the case of the intermediary) or sale (in the case of the grower) of the relevant produce may arise and thus provide incentives for one or the other party to renege on the original contract. Such incentives can be efficiently mitigated with “liquidated damage” clauses observed in contracts between bargaining associations and member growers, and with “most-favored customer” clauses observed in contracts between bargaining associations and processors. Each type of clause stipulates a penalty for contract nonperformance paid by the nonperforming party to the association. Importantly, such clauses require the involvement of a third party, the bargaining association in this case.

Perhaps the most obvious role for a bargaining association is price enhancement for growers. In a seminal analysis of cooperative bargaining, Helmberger and Hoos (1965) consider this issue in the context of three alternative models of the market environment in which a bargaining association might operate. First, in a setting where the intermediation sector is perfectly competitive, some degree of short-run price enhancement may be possible, but only if the association has some degree of control over total member production. The authors argue that long-run possibilities for price enhancement in markets with competitive intermediation are extremely limited. They base their conclusion principally on the observation that bargaining associations have limited control over total output produced; even if grower prices are increased above competitive levels in the short run, eventually new supply will come on line and force prices back down. In practice,

long-run barriers to entry in farming are quite limited, and prices above competitive levels encourage new entry and expanded output among incumbents.

The authors also consider environments with various forms of imperfect competition among market intermediaries and argue that a bargaining association may be able to raise the long-run price paid to growers. The qualification arises from the indeterminate nature of markets with “bilateral monopoly,” where a variety of price and quantity outcomes may form a market equilibrium. In general, the ability of a bargaining association to negotiate for an outcome favorable to growers will depend on many factors, but the most important of these likely will include the relative shares of member and non-member production and the structure of bargaining legislation (if any exists).

More recently, Hueth and Marcoul (2002) argue that price negotiations may increase market efficiency, rather than simply redistributing surplus from intermediaries and consumers to growers. When planting (or scheduling) decisions are made, there typically is considerable uncertainty about available supplies and future market demand. It is easy to imagine that if market intermediaries were allowed to communicate among themselves, they could collectively aggregate information on supply and demand conditions, improve prediction, and achieve greater efficiency. However, this type of explicit communication is prohibited by anti-trust legislation. Interestingly, price negotiation during the bargaining process allows for a type of industry-wide communication on aggregate supply and demand conditions, but with a third party (the bargaining association) watching out for the interests of growers. So long as the negotiating parties do not collude and act collectively like a monopolist with respect to consumers, this type of communication unambiguously increases market efficiency and benefits growers and consumers; intermediary firms may also benefit under some circumstances. Even when intermediary firms expect to benefit from bargaining, they individually will choose not to bargain for strategic reasons (if given the option), if they have access to the information that is communicated during the bargaining process.

4. Explaining the Incidence of Bargaining

As noted earlier, bargaining occurs mostly in processing fruit and vegetable commodities (although within these commodities there are a significant number where

bargaining does not occur), with notable exceptions in dairy and sugarbeets. Why is it that only some commodities seem to support bargaining? Answering this question is important for participants in commodity sectors who may be considering bargaining as a marketing option. Bargaining requires the active participation of sellers and buyers, so that explaining the success of bargaining cooperatives may require looking at both sides of the market. Holding all else equal, we would expect to observe cooperative bargaining in settings where it offers the greatest net economic benefits. The discussion and analysis in the previous section suggests where to look for these net benefits.

On the cost side, institutional arrangements for formal bargaining must be organized and coordinated. This requires communication among growers and a commitment by a majority of growers in a given area to allocate price negotiation authority to an association. When growers are geographically dispersed and heterogeneous in the structure of their farm operations, these organizational costs are likely to be relatively high. It is noteworthy that many of the commodities in which bargaining occurs are highly concentrated geographically.⁹ Similarly, soil quality and other growing conditions typically differ substantially across farms within a given commodity sector. If this sort of heterogeneity translates into substantial differences in growers' capacity to produce "quality" output, negotiated contracts must be such that high-quality growers receive relatively high returns. Otherwise, these growers will choose not to participate in cooperative bargaining. Designing contracts that have this feature can be contentious and can lead to detrimental conflict within an organization.

Buyer heterogeneity also can influence the cost of ongoing bargaining activities. When growers have to negotiate prices with a relatively large and diverse set of processors, negotiating costs are likely to be relatively high. One source of heterogeneity among processors is the nature of final output that each produces. Different kinds of final outputs may require different raw input attributes, so that the meaning of "quality" can vary across processors. When this is the case, negotiating quality incentives in contracts, such that each contract offers similar returns, can be complicated.¹⁰

As noted earlier, growers may benefit from bargaining in some types of market environments at the expense of intermediaries. However, there is a fundamental conflict when bargaining results in this type of outcome, and intermediaries can be expected to

engage in various kinds of (legal) “conflict strategies” to undermine the bargaining activity. Unless growers have sufficient political support to pass legislation that provides strong support for bargaining, one-sided benefits are unlikely to lead to a successful bargaining outcome. Bunje expresses this sentiment when noting that “If bargaining associations can reduce inefficiencies, promote stable raw product supplies, and provide services that complement the operation of firms they deal with, the food industry will give support and recognition to the bargaining endeavor” (Bunje 1980).

Bargaining can offer benefits to all parties when it results in enhanced price discovery (or “information sharing”). This is most likely to be important in markets where contracts are the primary farm-to-market coordination device. Without a substantial “spot market” of some kind, there is limited opportunity for information about supply and demand conditions to be transmitted to the various market participants, and a bargaining association can help overcome this problem. The fact that bargaining is observed exclusively in markets for processed commodities, where output is primarily contracted, is consistent with this observation.

Legislative support for cooperative bargaining clearly has an important role in facilitating successful bargaining. As previously noted, cooperative bargaining that facilitates information sharing is generally not an equilibrium outcome, even when it benefits all parties involved. Thus, legislation that requires “good faith” bargaining can be viewed as a sort of contract among the relevant parties to bargain, and one that potentially increases expected economic welfare. We would expect political support for bargaining legislation to be greatest in settings where the potential gains from this sort of contract are greatest.¹¹ However, even when handlers and processing firms lose as a result of cooperative bargaining, growers may still have sufficient political support to pass bargaining legislation. Thus, holding all else equal, bargaining legislation, and hence bargaining activity, is more likely to occur in states where growers are relatively strong politically.

Finally, the argument by Knoeber (1983) that bargaining may be an important institution for enforcing contract reliability suggests looking at commodities in terms of the relative cost of unreliability. For example, the relationship specificity and perishability associated with many of the commodities where bargaining occurs (referenced in Section 2.2) may be associated with relatively high costs of unreliability.

Although we've identified a number of factors that may influence the potential for successful cooperative bargaining in a given commodity, we've been unable to say much about the relative importance of these various factors. A fruitful direction for future empirical work may be to describe commodities in terms of each of the factors mentioned and to use these descriptions to explain the presence (or absence) of bargaining associations.

5. Conclusions

The increasing prevalence of contract arrangements in some agricultural markets has given rise to new marketing problems that are peculiar to these types of arrangements. Recent regulatory responses to these new problems include passage of mandatory price reporting in livestock markets, and attempts to pass "production protection" legislation in some states. Bargaining associations have functioned successfully in processing fruit and vegetable, sugarbeet, and fluid milk markets—where contract arrangements long have been the dominant form of farm-to-market coordination—for decades, and represent an alternative (or possibly complementary) response to these regulatory actions.

In an effort to better understand the role that bargaining associations might play in newly emerging contract markets, we examine past research on the economics of bargaining, and identify the underlying features of commodities and markets that seem to support successful bargaining. Bargaining is not just about increasing prices paid to growers; indeed, although there is very little empirical research that addresses this issue, what evidence does exist suggests that bargaining has very little direct influence on price. Nevertheless, the price negotiation process may be useful in itself as a form of price discovery in markets where there is uncertainty about market supply and demand conditions. Moreover, bargaining associations play an important role in ensuring contract reliability, and this can have significant consequences for market efficiency. These and other benefits associated with bargaining must be weighed against the organizational and ongoing operational costs of a formal bargaining association. Various kinds of grower and buyer heterogeneity can be expected to increase these costs substantially. Moreover, even when the aggregate net benefits associated with bargaining are positive, the distribution of these benefits across the various market participants may have an important influence on whether or not bargaining actually emerges.

Endnotes

1. See, for example, Looker 2000, which reports on a recent workshop (sponsored by *Successful Farmer* magazine) intended to make midwestern feed grain and livestock producers aware of bargaining possibilities, and *Cattle Buyers Weekly* 2002, where recent efforts by a number of large midwestern cattle feedlots to form a multistate cooperative bargaining association are summarized.
2. Recent efforts by a number of states to establish “producer protection” legislation and national efforts to amend the 1967 AFPA to include further protections for contract growers represent movement toward direct governmental regulation (see National Poultry Growers Association 2002 for a summary of these efforts).
3. The U.S. Department of Agriculture list previously cited contains only voluntarily reported activity, so that some associations may not be included; it is thus difficult to say whether there has been an actual decline in the total number of fruit and vegetable bargaining associations.
4. Interestingly, virtually all of the remaining production is accounted for by cooperative processors during this year, so that sugarbeet growers were nearly universally represented by some form of grower cooperative.
5. For a comprehensive treatment of the legal issues surrounding cooperative bargaining, and of the historical development of bargaining legislation, see Marcus 1994 and Bunje 1980.
6. Interestingly, the California Canning Peach Association’s master contract with canners contains a provision calling for binding arbitration in the event that conciliation procedures fail to result in an agreement. Participants in this industry have thus voluntarily agreed to augment the California legal code, suggesting some benefit from bargaining to growers and canners.
7. The text of Representative Kaptur’s bill (H.R. 230) can be accessed at <http://www.web-span.com/pga/legislate/hr230.html>.
8. See Marcus 1994 (pp. 103-105) for a discussion of extensive litigation carried out over the course of nine years to determine whether producers’ lien protection survived bankruptcy. The litigation, which resulted in a decision favorable to growers, was advanced by various bargaining associations on behalf of member growers.

9. Interestingly, the nascent cooperative bargaining in fed cattle markets referenced in our introduction has occurred as cattle feeding has become highly concentrated in a small number of states.
10. Marcus (1994, p. 47) notes how one processing tomato processor was forced to modify its contract to conform to other processors' pricing arrangements. The California Tomato Growers Association requested the modification to facilitate price comparisons across different processor contracts.
11. See Hueth and Marcoul 2002 for detailed analysis of the conditions that result in large potential gains.

References

- Bunje, R.B. 1980. "Cooperative Farm Bargaining and Price Negotiations." Cooperative Information Report 26. Rural Business- Cooperative Service, U.S. Department of Agriculture. Washington, D.C.
- Cattle Buyers Weekly*. 2002. "Feeders Will Pursue Collective Marketing." September 16.
- Helmberger, P.G., and S. Hoos. 1965. "Cooperative Bargaining in Agriculture: Grower-Processor Market for Fruits and Vegetables." Technical report. University of California, Division of Agricultural Sciences.
- Hueth, B., and P. Marcoul. 2002. "Information Sharing and Oligopoly in Agricultural Markets: The Role of Bargaining Associations." CARD Working Paper 02-WP 313, Center for Agricultural and Rural Development, Iowa State University. September.
- Iskow, J., and R. Sexton. 1992. "Bargaining Associations in Grower-Processor Markets for Fruits and Vegetables." Research Report 104. Rural Business-Cooperative Service, U.S. Department of Agriculture. Washington, D.C.
- Jacobs, J.A. 1992. "Role of Sugarbeet Bargaining Cooperatives." Research Report 108. Rural Business-Cooperative Service, U.S. Department of Agriculture. Washington, D.C.
- Knoeber, C.R. 1983. "An Alternative Mechanism to Assure Contractual Reliability." *Journal of Legal Studies* 12(June): 333-43.
- Looker, D. 2000. "It's Time for Clout." *Successful Farmer*. November.
- Marcus, G.D. 1994. "Farm Bargaining Cooperatives: Group Action, Greater Gain." Research Report 130. Rural Business- Cooperative Service, U.S. Department of Agriculture. Washington, D.C. March.
- National Poultry Growers Association. 2002. Legislative update.
<http://www.web-span.com/~pga/legislate/legislateindex.html> (accessed October 2002).
- Torgerson, R.E. 1998. "Cooperative Bargaining in the Next Millennium." Chap. 1: "Legislative and Legal Issues." In *American Cooperation*. Washington, D.C.: National Council of Farmer Cooperatives.
- U.S. Department of Agriculture. 2000. "Cooperatives in the Dairy Industry." Information Report 1, Section 16. Rural Business-Cooperative Service. Washington, D.C.
- . 2001. "Directory of Farmer Cooperatives." Service Report 22. Rural Business-Cooperative Service. Washington, D.C. March.