

# **COMPARISON OF LIVESTOCK MARKETING ALTERNATIVES**

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An evaluation of marketing alternatives is complicated by the fact that less traditional marketing avenues like electronic auctions are difficult to directly compare with more traditional selling methods like local auction markets. This article discusses economic criteria for evaluating livestock marketing methods. Criteria are discussed for 1) electronic marketing, 2) private treaty, 3) local auction, 4) special auctions, 5) cooperative arrangements, 6) Chicago Merchantile Exchange (CME) Futures, and 7) CME Options.

## **ECONOMIC CRITERIA**

Economic criteria are divided into tangible and non-tangible items. Physical terms of a marketing method such as shrinkage (refer to The Economics of Shrinkage article), trucking costs, overnight water and feed restrictions, commissions, interest costs, are tangible items that need to be calculated when determining a net selling price. The combined selling costs to the buyer and seller can range from between 8% and 10% of the gross animal value (Bailey). More intangible factors like the number of legitimate buyers in a market, riskiness of receiving full payment, the degree of convenience offered, and certainty in obtaining a targeted price level are economic criteria that also need to be considered when choosing a marketing method. Both tangible and intangible factors need to be evaluated jointly when deciding which

marketing method or "road map" will best meet goals and target price levels set. Target price levels must be realistic with current market factors and price trends. Costs of production and breakeven prices should be identified and utilized as a reference mark for marketing. These tangible and non-tangible economic criteria are discussed below in conjunction with six different marketing methods.

## **ELECTRONIC MARKETING**

Electronic marketing is a mechanism for marketing beef cattle by a description of standardized terms and/or videotape with virtually instantaneous communication between buyers and sellers, regardless of physical location between both people and cattle. Electronic marketing methods hope to increase the number of legitimate buyers by decreasing the transaction costs of inspecting, shipping, and buying cattle. This reduction in transaction costs is hoped to translate into a higher net price for the rancher and lower cost for the buyer. The degree that transaction costs will be decreased depends greatly on information, volume, location, and trucking costs.

Standardized information regarding terms, grades, and descriptions are necessary for electronic pricing efficiency. If one lot of cattle is sold under different terms than another comparable lot of cattle, it is difficult to make a direct comparison as to which buyer is offering the "best deal." Common or standardized terms allow for an equal comparison of bids and is a necessary condition for a market to be price efficient. Electronic marketing terms are the same for all buyers, allowing for improved price efficiency over individual private treaty bids that may have different terms. Standardized terms require that a trained grader make an accurate representation of your livestock compared to other livestock.

The grading reputation of an electronic auction needs to be evaluated closely since a misrepresented grade that has been lowered will cost a rancher more than if no grade had been given at all.

Adequate volume is necessary to attract many buyers so that top dollar is paid for all lots sold. If buyers discover that low numbers of livestock are offered for sale at an electronic auction, they may be unwilling to invest the resources for getting into a particular electronic auction. Prices could also fall significantly lower than the prevailing market, if available volume exceeds the number of orders that buyers have to fill. Lack of sufficient participation in electronic markets is one of the chief concerns among both sellers and buyers. When considering an electronic market, buyer participation expected for each specific sale needs to be examined carefully. An advantage of electronic markets is that a minimum selling price can be specified prior to the sale, but a fee comparable to regular commission rates will still be charged if the minimum selling price is not met.

Locational considerations that relate to shrink, trucking costs, and disease endangerment are potentially beneficial features of electronic auctions over local auctions. First, trucking costs can be lowered significantly by a more direct route, and the elimination of one unloading and loading of the livestock. Remote ranch areas can significantly reduce their shrink by having livestock weighed on or closer to the ranch. Reducing the livestock's exposure to diseases gives the buyer an advantage, especially if the cattle are going to a feedlot with cattle from only one or two ranches.

Primary disadvantages of electronic auctions to local auctions are the frequency of sales and discounts incurred for small lots. Any lot that doesn't make a full truckload (generally 50,000 lbs.) can expect to be discounted. Commission charges are often higher too to cover costs associated with grading and the electronic auction. Specific electronic

markets of a) tele-auction, b) video auction, and c) computer auction are further discussed below.

### **Tele-Auction**

Many times ranchers will join a marketing cooperative with a tele-auction so that more sellers are committed to market through the cooperative. This organization and seller commitment is given to attract more prospective buyers. Livestock are graded on each individual's ranch by a trained grader. Load lots are then assembled on paper according to location, number, weight, quality grade, and other noteworthy descriptions. After buyers receive this written description of cattle offered for sale, a prearranged conference phone call connecting potential buyers and an auctioneer must be set up. The auctioneer offers each lot for sale with buyers calling out their identification number over the phone if they wish to bid at the current asking price. A lot is sold when no higher bid is received, unless the seller's minimum price set before the auction is not obtained.

### **Video Auction**

A video auction is very similar to the tele-auction except that more information is given to potential buyers. Two components comprise the video auction — a visual component provided by a video and a written component given by a sale catalogue. A videotape of animals sold is generally made by a regional representative of the video auction company prior to soliciting buyers. About a \$2.00/head videotaping fee is required and this fee is generally included in the sales commission. Sales catalogue descriptions are prepared by the seller and regional video representative when the cattle are videotaped.

The sale is conducted with buyers assembled in one or more rooms looking at a large screen TV monitor — possibly connected by satellite to other buyers at very distant locations. Buyers must register with the auction and go through a

credit check and clearance before the sale like in telephone and computer auctions. Videotapes of about two minutes in duration are shown while an auctioneer solicits bids. During the sale, buyers bid on livestock over the telephone like in a tele-auction but they also “see” the animals when bidding. The video auction representative oversees delivery and is responsible for ensuring contract compliance with both seller and buyer.

Cows and heifers that are guaranteed bred and/or with a negative bangs test are to be tested prior to delivery. This requires certification from a licensed veterinarian and these costs are usually paid for by the seller, unless stated otherwise. Although many efforts are made to ensure that the “catalog” description and terms are up-to-date, all announcements from the auction block take precedence over previously printed matter.

### **Computer Auction**

Computer auctions are similar to video and tele-auctions except that information and bidding is conducted with electronic computers. Cattle are described before the sale with information transmitted via computer connections. When the sale is conducted, buyers indicate a bid by activating the bid key on a computer terminal. Initially, the offering price for a lot of cattle may drop by \$1.00/cwt. every 5 seconds until a buyer activates their bid key. This buyer has the bid until another buyer raises the bid. Bids are generally raised in smaller increments than they are lowered. The Electronic Auction Market (TEAM) from Calgary Stockyards increases bids by \$.25/cwt. and drops the price by \$1.00/cwt. to secure a bid (Rust and Bailey). If a higher bid is not received within the buying interval for bid increases (e.g. 20 seconds), the lot is declared sold. Unlike video and tele-auction, buyers have no way of telling who they are bidding against in the absence of any collusion. With the conference call associated with video and tele-auction, the voice signals of prominent bidders can be recognized fairly quickly. The computer identifies

who has made every bid to the auctioneer but buyer bids are not identifiable to other buyers.

### **Slide Considerations**

Virtually all feeder cattle are sold on a sliding scale when sold electronically or direct. A slide establishes the discount or premium from a base price depending on differences in actual base weight (after shrink) from those expected. Since heavier weight feeders generally sell for less than light feeders, a slide is part of the terms of trade. Many contracts allow for a small weight allowance of like 10 lbs./head before any weight adjustment is made. A slide is defined in \$/cwt. and can have a range from \$0.00/cwt. to \$10.00/cwt.

The slide is effective for both over and under weight cattle so that light (heavy) weight cattle will receive a premium (discount) from the bid price. The net price received can be calculated as follows:

- 1) Determine if the weight after shrink is within the weight allowance. If within weight allowance then,  
$$\text{net price} = \text{bid price} \times (1.0 - \text{shrink \%}).$$
- 2) If heavier than the maximum weight allowed after shrink before the slide is effective then,  
$$\text{net price} = \{\text{bid price} - [\text{weight after shrink} - \text{max. weight allowed}] \times \text{slide}/100\} \times (1.0 - \text{shrink \%}).$$
- 3) If lighter than the minimum weight specified after shrink before the slide is operative then,  
$$\text{net price} = \{\text{bid price} + [\text{min. weight specified} - \text{weight after shrink}] \times \text{slide}/100\} \times (1.0 - \text{shrink \%}).$$

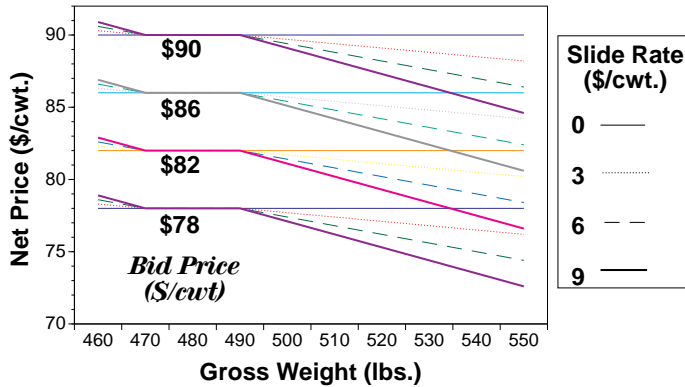
For example, what is the net price received if the bid price is \$80/cwt., the base weight after shrink is 480 lbs. with a 10 lb. weight allowance and 4% shrink, and a slide of \$4.00/cwt. is utilized? A calf weighing 510 lbs. would have a net weight

after shrink of 489.6 lbs. ( $510 \times .96$ ), within 10 lbs. of the specified base weight of 480 lbs. Thus, the net price would be \$76.8/cwt. ( $\$80/\text{cwt.} \times .96$ ) or \$391.68/head. If the calf had a gross weight of 550 lbs., the net price received would be

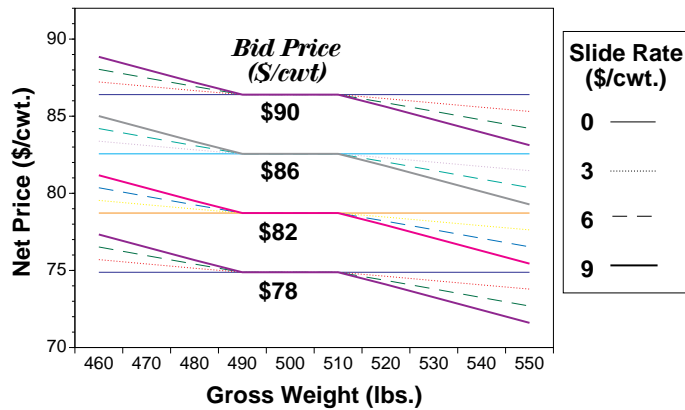
\$75.34/cwt. ( $\{80 - [(528-490) \times 4.0/100]\} \times (1.0 - .04)$ ). If the calf weighed only 480 lbs. on the scale, the net selling price would be \$77.15/cwt. ( $\{80 + [(470 - 460.8) \times 4/100]\} \times (1.0 - .04)$ ). The figures to the left net price of cattle with different shrinkage rates, bids, and slides illustrates how net prices vary based on gross weight.

**Net Price Received on Gross Weight with a 480 lb. Base Weight (after shrink), and 10 lb. Weight Allowance.**

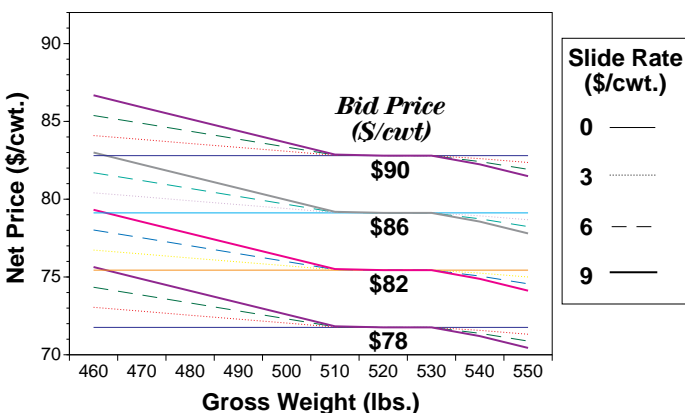
**Panel A. 0% Shrink**



**Panel B. 4% Shrink**



**Panel C. 8% Shrink**



All livestock are weighed on certified scales and sell FOB (not including transportation charges) at the ranch, unless otherwise stated. Any cuts made from a pen are made after the cattle are weighed.

**PRIVATE TREATY**

Private treaty refers to individual buyers and sellers negotiating one-on-one the terms and price of sale. This method generally works best when the buyer knows the quality of livestock available and the rancher knows that the reputation of the buyer is reliable. Under these conditions, negotiations can occur over the telephone without the need for travel and inspection of animals.

Price efficiency is generally lacking under a private treaty method due to insufficient information. All potential buyers don't have adequate and equal information on a particular rancher's livestock and all rancher's don't have full information on the trustworthiness and legitimacy of all buyers. In general, buyers must be bonded and licensed in order to buy livestock. Verify that these qualifications are met. Insist upon a wire transfer of funds, certified check, letter of credit, or cashier's check to lower the risk of not receiving full payment. A personal check is the least expensive for the buyer, but also a high risk for the rancher selling livestock. It is always a safe practice to retain title of livestock until the final payment has cleared the buyer's financial institution. If a personal check doesn't perform in full the seller has to pursue legal procedures in order to obtain funds. Legal fees can add up in a hurry and when livestock are

removed from the state of origin it is very difficult to even repossess them. An example of what a "Livestock Bill of Sale and Contract" (Bahn, Brownson, and Rust) might include is noted on the following page.

### LOCAL AUCTION

Local auctions are a centralized market where buyers, sellers, and animals merge to a particular location and specific time. Livestock are generally sorted so that each lot is somewhat uniform. The disadvantage of sorting animals into more uniform lots is that smaller lot sizes receive a discounted price (Gum and Daugherty). Sellers may be able to combine small lots with one another in order to avoid some of this price discount, but this requires more organization, weighing, and agreement that all cattle are of equal quality and value.

Livestock are generally displayed in a round ring or pen at the local auction while buyers look on and call out bids. Animals are weighed immediately before or right after they enter the sale ring. Modern sale rings often display the total and average weight of a pen simultaneously while bids are requested by the auctioneer. Buyers generally don't see the cattle until they enter the ring but they develop a very trained eye for weight, yield, grade, and other characteristics.

Marketing costs of a local auction are relatively high due to increased transportation costs, higher shrink/weight losses, and the costs of maintaining facilities and staff to run a local auction. However, a local auction provides good liquidity to ranchers with sales occurring on a much more frequent basis than other marketing methods. Also, the auction insures the legitimacy of buyers rather than the seller as in a private treaty sale. The magnitude of strengths and weaknesses for a local auction are often site, animal, and season specific.

\_\_\_\_\_ 19 \_\_\_\_

**LIVESTOCK BILL OF SALE AND CONTRACT**

This certifies that \_\_\_\_\_ of \_\_\_\_\_  
*full address and phone*

has this date bargained and agreed to sell to \_\_\_\_\_ of \_\_\_\_\_  
*full address and phone*

\_\_\_\_\_ head of \_\_\_\_\_ to be delivered F.O.B. \_\_\_\_\_  
*location and method*

on or before the \_\_\_\_ day of \_\_\_\_\_ 19\_\_ at \$ \_\_\_\_ per head or at \$ \_\_\_\_ per cwt., to be weight on \_\_\_\_ hours  
shrink or \_\_\_\_% shrink at \_\_\_\_ with \_\_\_\_% cut back. Received as part payment \$ \_\_\_\_\_, with balance of \$ \_\_\_\_\_

to be paid on delivery, I hereby guarantee title thereto, viz:

No. Head	Description	Brands	Location of Brands	Price Per Head

- On the delivery date specified above, the seller hereby reserves the right to demand full payment for the described livestock by a) cash, b) wire transfer of funds to the seller's requested destination, c) cashier's check drawn on purchaser's financial institution, d) certified check drawn on purchaser's financial institution.
- The seller further stipulates that title does not change on the above described livestock until the payment is made in full. Therefore, the seller retains title to the above described livestock until payment is made in full.
- Should the purchaser fail to meet any of the above noted terms, the down payment will be forfeited to the seller.
- All of the above stock is free from encumbrances, except as noted in paragraph 5 below, including taxes for year of delivery, and will pass federal and state inspection for interstate shipment. Health and brand certificates will be furnished to the purchaser, free of charge, on delivery.
- The stock is subject to encumbrance(s) held by the following named person(s) with address and nature of encumbrances set forth as follows:  
\_\_\_\_\_  
\_\_\_\_\_
- Time is of the essence in this agreement, and this agreement shall apply to and bind the heirs, executors, administration, successors and assigns of the respective parties and constitutes the entire agreement between the parties herein.
- The law of the State shall govern the construction and interpretation of this agreement.

(Seal) \_\_\_\_\_ Seller

Witness \_\_\_\_\_  
*date* \_\_\_\_\_  
*signature* \_\_\_\_\_  
\_\_\_\_\_ Purchaser

*Billsale.chr/file/5/20/90/pcr*

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Source: Great Plains Beef Cattle Handbook, GPE-4115.4.

For example, many buyers may be bidding for heifer calves in the spring but few in the fall.

### SPECIAL AUCTION

Special auctions are generally feeder cattle sales that are held seasonally or on an infrequent basis. A special auction usually has more publicity and promotional efforts to increase the number of sellers and buyers at the auction. A livestock association will often sponsor a special sale. The association can give greater credibility to the quality and quan-

tity of livestock available for sale. Assuring buyers of quantity and quality is centered at increasing buyer attendance. An additional small commission fee is usually charged with a special auction to cover greater advertisement and promotional efforts.

Similar to local auctions, the magnitude of strengths and weaknesses are usually sale specific. If a special feeder auction occurs every year about when your calves are weaned, the liquidity of special auctions may be adequate. One disadvantage of following a rigid special auction marketing strategy is that you may sell all of your "crop" at the low price for the year. Spreading out the timing of sales can diversify some of the price risk associated with marketing, but may make shipping livestock more difficult and costly. Utilization of CME futures and options is one way ranchers can "enter the market" at different times and still ship all of your livestock on the same day.

### **COOPERATIVE ARRANGEMENTS**

Cooperative arrangements for marketing can range anywhere from a formal cooperative agreement to a marketing "pool" with a rather loose commitment. Cooperative legislation was initiated in the early 1900s with the general goal of enabling producers to "empower themselves" to provide goods and services required by member patrons. The Capper-Volstead Act places no size on the market share that can be attained by a cooperative and be legal. Thus, all the cattle in Arizona could be marketed through one cooperative and not be subject to any anti-trust legislation. Ownership and control of a cooperative must be in the hands of those that utilize its services and business operations shall be conducted so as to approach a "cost basis." Cooperatives operate for a profit motive like a private company but the return on capital accumulations are limited. Profits are distributed back to member patrons through a

dividend that is generally in proportion to the dollar patronage by members. Chief control of a cooperative lies with a Board of Directors elected by patron-owners. Voting is generally 1 vote for each member although some cooperatives vote in relation to dollar patronage. Liability of the cooperative is generally limited to the assets of the cooperative.

Cooperatives have not been a big tool for ranchers marketing livestock in the US. In 1986, it was estimated that 8% of all livestock and livestock products were sold through cooperatives. This compares relatively low to dairy products (83%), cotton (41%), fruits and vegetables (35%), and grains and soybeans (34%) (Kohls and Uhl). Nonetheless, they may still be the best avenue available for some ranchers at attaining top dollar for their products.

Obtaining the initial equity for something like a livestock cooperative can be difficult. The sale of common or preferred stock often provides capital for cooperatives but the market for such stock must come primarily from cooperative members. Preferred stock customarily has a fixed dividend and no voting rights. Although limited, it is often the best tool for attracting "outside capital." Various methods and rules apply from one association to another for owners withdrawing capital. Usually a member can sell his stock and/or earnings to another member, subject to approval of the board. Some cooperatives have a fixed time for redeeming stock certificates as well. This is often referred to as the "use of a revolving fund" since these funds generally do not accrue interest. Disbanding an entire cooperative can be a long and complicated process with many legal fees. Ranchers in an area need to know for sure that a marketing cooperative is what they want before making the commitment to start a marketing cooperative. USDA, Agricultural Cooperative Service has put together a 31 minute videotape on "How to Start a Cooperative." This videotape is a good starting place and something all ranchers should watch together as a group

and discuss before taking the first steps to forming a cooperative. A copy of the videotape can be obtained by sending a \$25 check or money order payable to Agricultural Cooperative Service, and mail to ACS, P.O. Box 96576, Washington, DC 20090-6576.

A more informal organizational structure for marketing livestock could be an association sale or "pool." An association or pool generally commits ranchers to bringing a specific product like yearling bulls, steer calves, bred heifers, lambs, or wool for a particular sale. The association spends money on advertising and soliciting buyers for everyone so that these costs can be reduced on a per unit basis. These costs are generally covered by charging a small percentage of the gross selling price. The success of association or pooling sales largely depends on the ability and reputation of assuring buyers that a sufficient volume of an identified class of livestock or livestock products will be sold. A legally binding commitment may be necessary for the initial sale years to attract a "competitively viable" number of buyers. Increasing buyer attendance is key to attaining higher sale prices and better ranch profits.

### **CHICAGO MERCHANTILE EXCHANGE (CME) FUTURES**

CME futures is a method for hedging price risk that is similar in form to forward contracting. Because they are similar one may ask why utilize the CME? A chief reason for utilizing the CME is liquidity. A decision to sell can be made immediately knowing that the prevailing market price on the exchange will be received. The CME consists of many traders that are receiving buy and sell orders from individuals all over the world. Because all contracts are standardized, no differentiation is made between offers and bids. All bids and offers are made with vocal outcries so that all traders in the pit have equal price trading information. Standardization of contracts and

equal information are necessary conditions for a market to operate in a price efficient manner.

The CME market is considered a "base point" or reference market for local markets throughout the world. Trading occurs for the months of January, April, May, August, September, October, and November for feeder cattle. Contracts trade in 50,000 lb. increments, up from 44,000 lbs. prior to January 1993. Because local markets follow the CME, a rancher can hedge by taking a position in the futures market that is opposite of his cash position. After January 1993, feeder cattle futures contracts can be "cash settled" to the new CME Composite Weighted Price for 700-799 pound a) Medium Frame #1 and b) Medium and Large Frame #1. Feeder futures contracts were previously settled to the U.S. Feeder Steer Price (USFSP) for 600-800 pound feeder steers as calculated by Cattle-Fax. The new cash settlement index is expected to have a lower basis variability than the previous USFSP index.

Some reasons why basis variability should be lower with the new index are:

- 1) The weight range has been narrowed from 600-800 lbs. to 700-799 lbs., eliminating more price variation due to weight.
- 2) The region from which sale transactions are used to calculate the index has been narrowed. Feeder cattle transactions have been reduced from 27 states to the 12 states of Colorado, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming. A smaller and more homogeneous geographic region is expected to make the cash settlement index better for the feeding industry, but the impact of a reduced geographic region for Arizona's ranchers and feedlots is more ambiguous.

- 3) The new index is a true volume-weighted average price rather than a regional weighting formula. That is, there is no distinction between boundaries or cattle sold at a local auction, direct sale, or electronic market. Every pound of livestock sold has equal impact in determining the CME Composite Weighted Average Price. All direct and electronic sales included are quoted on an FOB basis, 3% equivalent standing shrink.
- 4) The description of cattle used in calculating the index has been changed. The new index will include livestock of Medium Frame #1 and Medium and Large Frame #1, as determined by Federal-State Market News reporters. The old criteria was a "60-80% choice grade criteria" that was inconsistent terminology for current USDA grading definitions.

For hedging an October weaned calf crop in the summer, one could sell an October feeder contract in the summer through a local broker. Then at weaning in October, concurrently buy an October feeder contract while selling in the local cash market. If the differential between the cash market and futures (basis) is the same when October futures were sold as when they were bought back, a "perfect hedge" is said to have occurred. Thus, a \$5 cwt. price decline in the cash market would be offset by a \$5 cwt. gain in the futures market (i.e., buy back at \$5 cwt. lower in the futures than sold for) with a constant basis or "perfect hedge." An increasing basis (cash minus futures) would be desirable for the rancher hedging with futures but a decreasing basis would decrease a rancher's net price received. Understanding what the basis will be when a hedge is completed is key to predicting a final net price.

As previously mentioned, one advantage of hedging with futures is that futures can allow one to enter the market at several different times throughout the year but

still have one delivery date. Because futures are sold in 50,000 lb. increments, approximately 100 head of feeder cattle are "sold" with every contract. If one has a herd of 200, a strategy for reducing price risk could be to sell one futures contract in the spring and one later in the summer, rather than selling both at the same time in the spring or summer.

Because hedging with futures "locks in a price" the net price received will only be affected by changes in the basis rather than the general price level. This is desirable when the price level is declining but prices can increase too. Not selling 100% of your anticipated feeder sales on the futures market is one way of reducing the "risk" of not benefiting from price increases in the market. But another approach is to hedge utilizing CME options.

### **CHICAGO MERCHANTILE EXCHANGE (CME) OPTIONS**

An option is the right but not the obligation, to sell or buy a commodity traded on the futures market for a limited time period at a specified price. In order to obtain the right to sell feeder cattle or live cattle futures (put option) on the CME at a pre-specified price level or strike price, a premium must be paid. A put option works very much like auto or accident insurance. The premium you pay for auto insurance will depend on the driving record of other drivers in your class (e.g., neighborhood, age, distance of daily commute) and level of insurance. Similarly, the premium you would pay for a put option depends on how volatile market conditions have historically been and the level of insurance or strike price (how much above or below current futures prices). More distant time horizons will require a higher premium than nearby contracts, due to more uncertainty. If feeder cattle futures remain or fall below the previously specified strike price, a put option will be exercised like an insurance claim would be filed if one had an auto accident. That



is, futures can be sold at a higher price (strike price) than the current futures price so the option is exercised. If futures rise about the strike price purchased, the option is left to expire and the cost of the premium is absorbed in the same way that an auto insurance holder absorbs the cost of a premium when a policyholder is not involved in any accidents. If prices drop, a put option will give price protection much like an

auto insurance policy provides coverage for an auto accident. The amount of coverage in a put option depends on the strike price (i.e., higher the strike price the higher the premium and level of coverage) and time period covered.

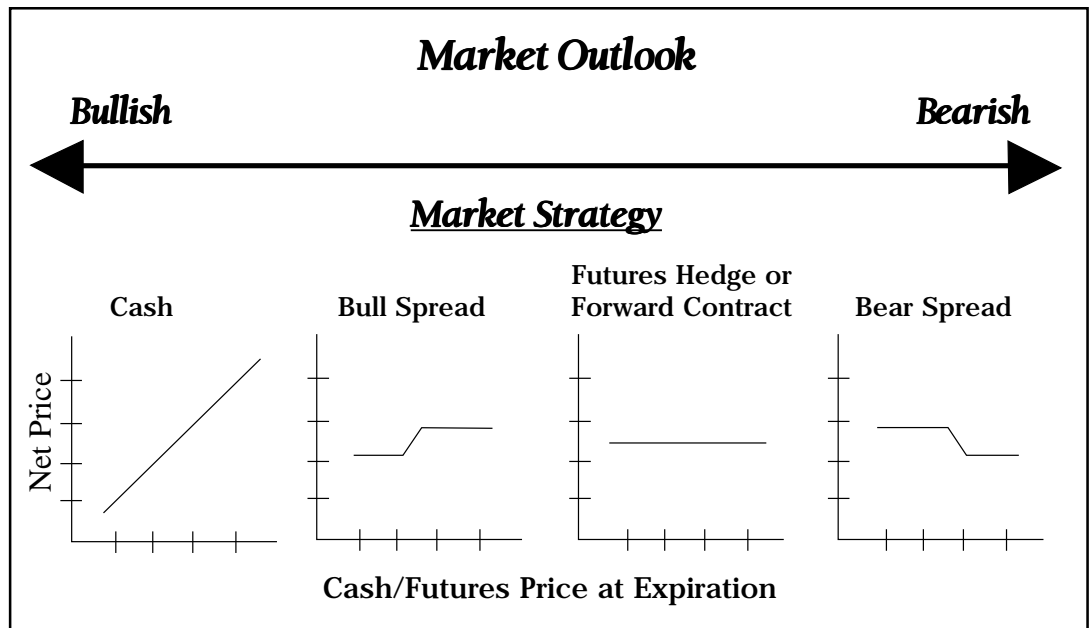
### MARKET OUTLOOK

An individual's financial position, risk aversion, market outlook, and personal preferences need to be accounted for in developing a marketing plan. The figure above illustrates how market strategy and tools utilized will differ depending on a rancher's market outlook. Market strategies of cash sale, bull spread, forward pricing, and bear spread are compared.

**Cash Marketing:** A bullish market outlook is consistent with the cash marketer since the rancher receives the full benefit of any price advances. Cash marketing is appealing in that minimal transaction costs are required, and the method is straightforward and familiar. On the down side, the rancher also absorbs the full risk of any price declines in the market. Another disadvantage is that a rancher can only sell when delivery is possible. This limits the ranchers

ability to reduce price risk. If a rancher can market livestock throughout the year, cash marketing is somewhat diversified and risk averse in that an average price somewhere between the high and low seasonally adjusted price for the year is realized. But marketing a few animals at a time throughout the year has increased round-up, transportation, calving, and other management considerations that generally make this strategy prohibitive. Other price risk management tools that don't require delivery to "enter the market" are briefly described below.

**Bull Spread:** Bull and bear spreads are very common market positions taken by future traders and equivalent positions are available to ranchers. A bull spread is appealing in that a rancher is protected from a price decline but can still benefit from higher prices, albeit less than the cash marketer if prices increase a lot. A rancher can take a bull spread position by: 1) writing a call option (right to buy at a specified strike price) for say November with a strike price that is above current November Futures, and 2) buying a November put option (right to sell at a



specified strike price) that is below the November Futures price. The spread will be determined by how much the strike prices of the call and put options differ. In writing a call option, one receives a premium — amount associated with taking the risk that November Futures will increase above the specified strike price before November. ***The premium received from writing the call option can offset all or most of the premium required for purchasing the put option.*** But when writing a call option, margin calls have to be made if November Futures advance above the strike price. Losses incurred when the market advances above the call option's strike price are offset by advances made from feeders on the ranch that will be sold in the spot market. This is why the figure shows a net price ceiling for large market advances. Similarly, the net price received is a price floor for large market declines. The put option purchased increases in value as the market declines, offsetting losses incurred from selling feeders in the spot market at a lower price.

Forward Pricing: As described earlier, forward contracting or hedging with futures are two common ways to “lock in a price.” Forward contracting has a simple and straightforward approach with appeal similar to cash marketing. Forward contract specifications can be written so that a rancher's net price is known for certain when the contract is signed, providing weight, and specified standards are met. Pricing terms should describe a schedule of discounts and premiums that is at least as detailed as that described in the “Livestock Bill of Sale Contract” discussed under private treaty sales. Forward contracting is no better than the reliability of the contractor and terms specified. Hedging with futures has an edge over forward contracting in liquidity. That is, numerous buyers and sellers trade in a competitive

environment on the Chicago Merchantile Exchange, insuring that a fair market price is obtained whenever buy and sell decisions are made.

Bear Spread: A bear spread uses the same tools as a bull spread. A rancher can take a bear spread position by: 1) writing a call option for a strike price that is below the prevailing November Futures price and 2) purchasing a November put option that is above the current November Futures price. As above, the magnitude of the “spread” will be determined by how much the strike prices of the put and call options differ. The spread is bearish since the strike price of the put purchased is above the strike price specified on the call written. Both put and call options are “in-the-money” since they both have value if exercised now. The put and call options for a bull spread are both “out-of-the-money” since they have no immediate value if exercised. Most options are traded out-of-the-money so that trading is often very thin for a bear spread. A licensed broker can provide up-to-date information on the volume or liquidity for a specified option. As above, market declines are offset by an increase in value from the put option purchased and market advances are reduced by decreases in value from the call option written.

When hedging with futures or following a bear or bull spread market strategy using options, a rancher's net price can be reduced or increased from basis (cash minus futures) fluctuations. If the basis declines (increases), the net price received by the rancher will decrease (increase). The basis for Arizona steers and heifers of varying weight classes are described for feeder contracts of November and May in Figures 1 and 2, respectively, on the following pages. These graphs illustrate that the basis can vary greatly depending on sex, weight, and year. However, the range in basis values for 700-799 lb. steers, what

Figure 1. November Basis (Cash-Futures) Range and Average, 1980-93.

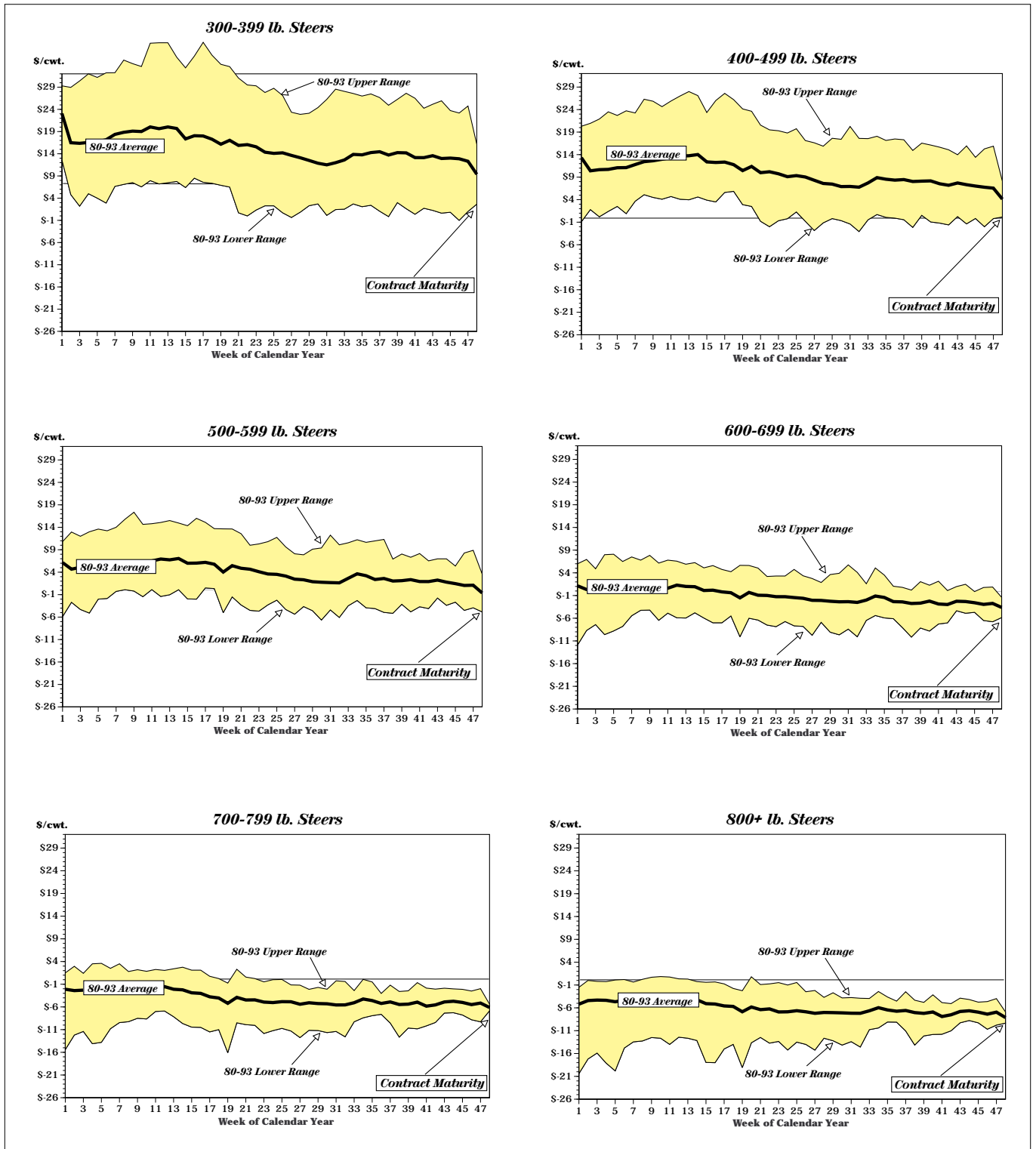
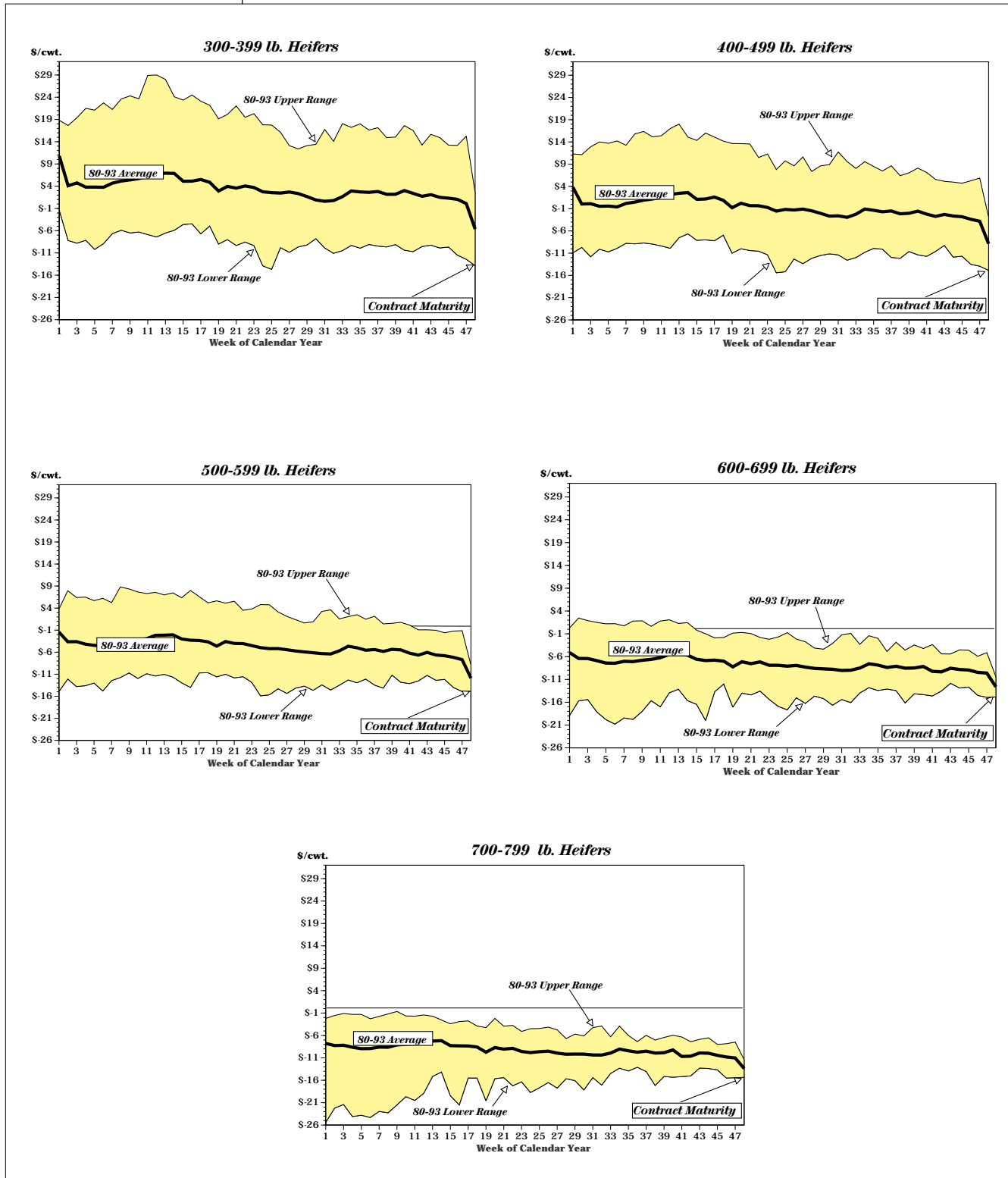


Figure 1 (continue)



Data Sources: Chicago Mercantile Exchange and Cattle-Fax.

Figure 2. May Basis (Cash-Futures) Range and Average, 1980-93.

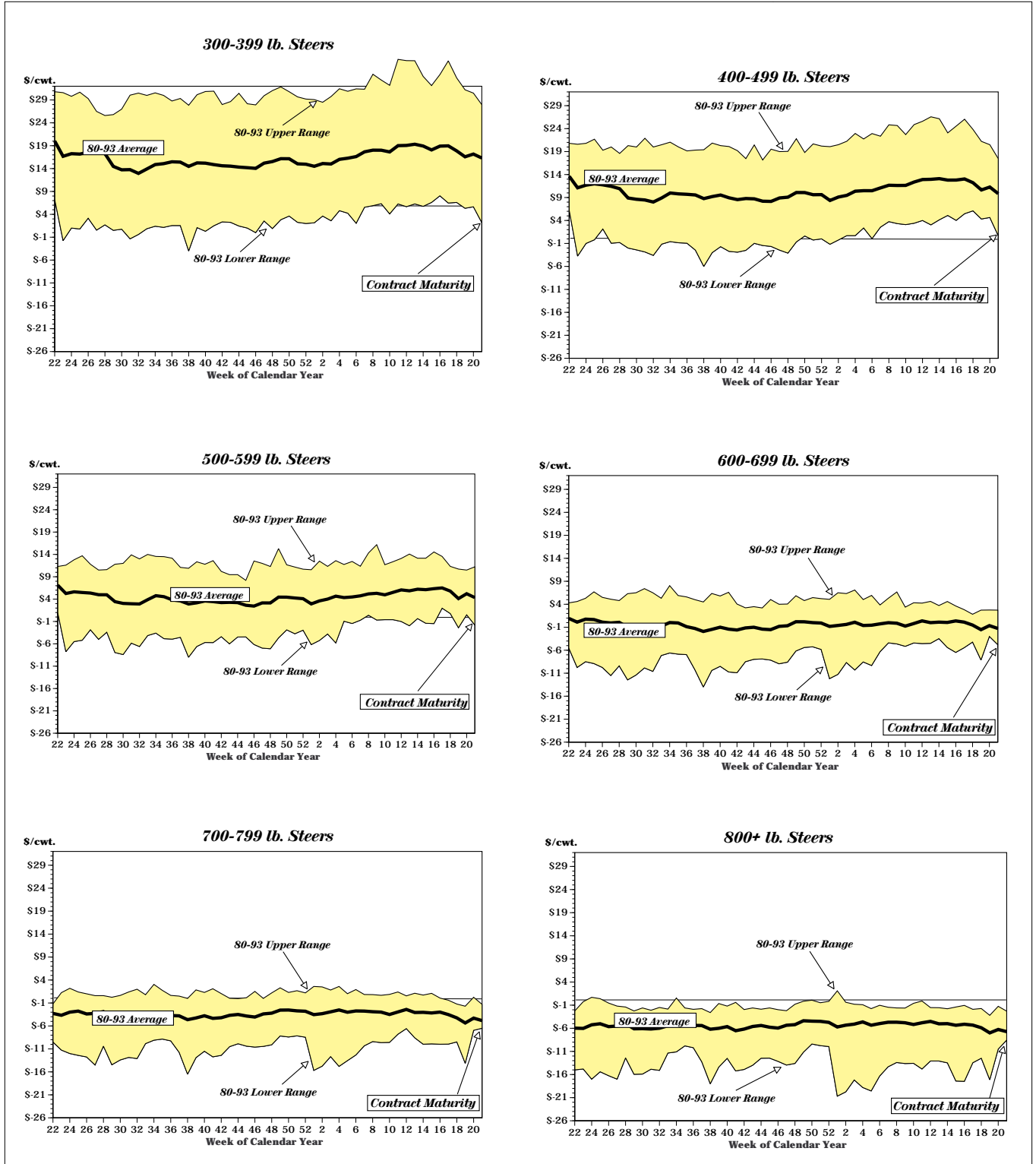
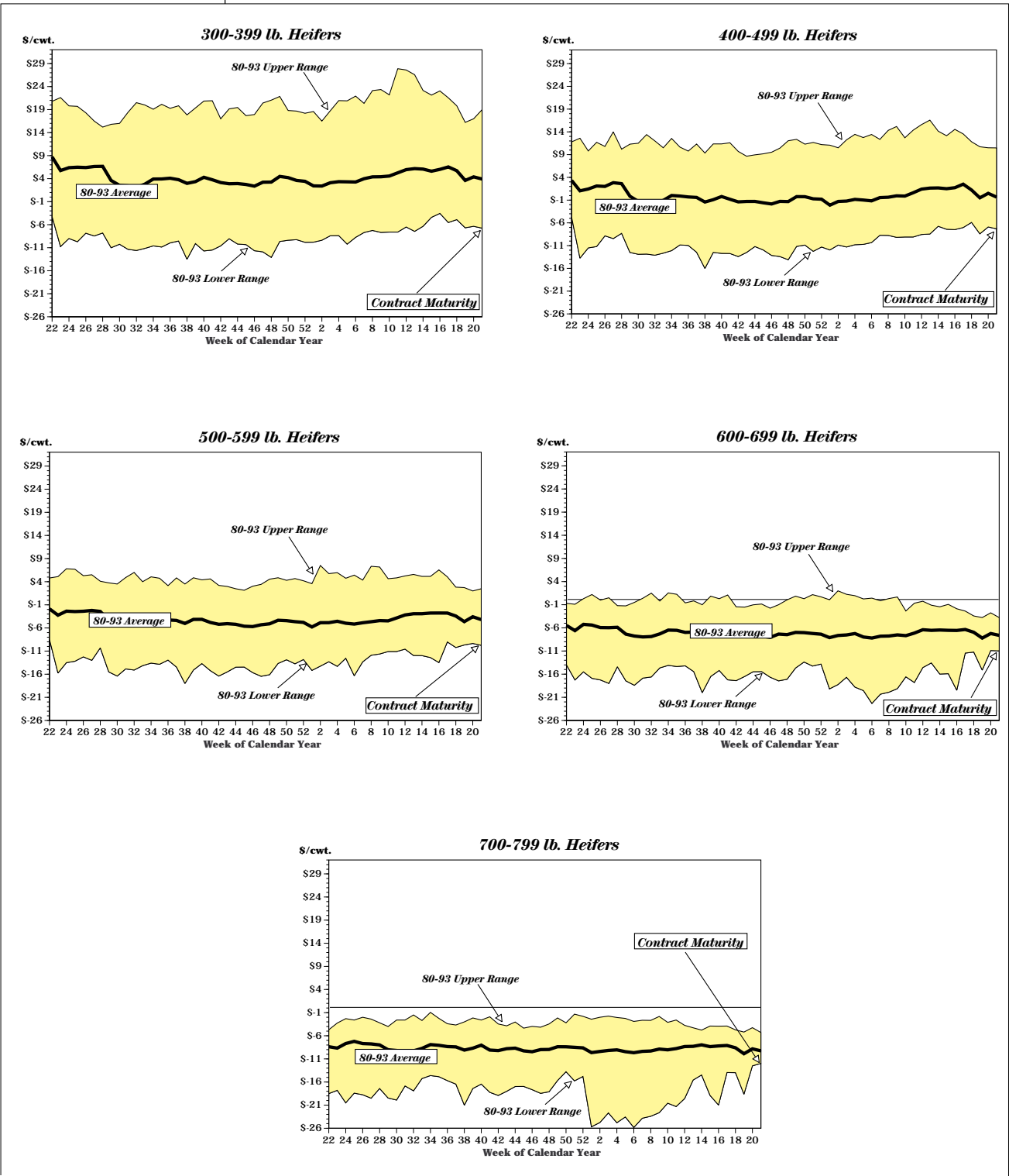


Figure 2 (continue)



Data Sources: Chicago Mercantile Exchange and Cattle-Fax.

the futures market primarily reflects, has been quite narrow. Average basis values shown between 1980 and 1993 for the calendar week of the year you plan to sell your steers or heifer give a reasonable estimate for calculating an expected net price.

For example, in mid-November (week 46) the average basis for 400-499 lb. steers is \$6.75/cwt. If in March the November feeder cattle futures is trading at \$80.00 cwt., a net price of \$86.75/cwt. would be a reasonable price estimate for hedging with futures. November futures would be sold at \$80.00 in March. Then, feeder steers weighing 400-499 lbs. would be sold in mid-November locally at the same time the November futures contract is bought back. If the cash price is \$6.75 above the futures as anticipated, a net price of \$86.75 (less a small commission fee and some interest accrued or expensed from margin calls) is realized by the rancher. If the cash price were only \$2.00 above the future in November, then the net price received would decline by \$4.75. The difference between the cash and futures market or basis is the key factor rather than the overall price level. Gains (losses) in the futures market are offset by declines (advances) in the cash market for all livestock hedged with a futures contract, if the basis remains constant.

Many other market tools and strategies are available than the few briefly described. Combinations of cash and hedging with futures can attain similar outcomes to the bear, and bull spreads described. The range and number of strategies available is only limited by the understanding and creativity of every marketer.

Margin calls may be required for hedging with futures or writing a call option. One reason the purchase of a put strategy has appeal is that no margin monies are

ever required. But premium costs can add up with a put strategy. It is important that your banker or source of financing understands your hedging strategy if margin calls are a possibility. A hedging strategy can turn sour for the rancher if adequate cash is not available to meet margin expenses. Also, the hedging legitimacy of writing a call option and receiving a premium may be under question by the IRS. This may require the consultation of a tax advisor and futures broker since each individual situation can vary.

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**Table 1. Pros and Cons of Marketing Methods**

<b>Method</b>	<b>Advantages</b>	<b>Disadvantages</b>
<b>Cash Marketing</b>	<ul style="list-style-type: none"> <li>* Full benefit of price advances.</li> </ul>	<ul style="list-style-type: none"> <li>* Only sell when delivery is possible.</li> <li>* Full risk of price declines in market.</li> <li>* Basis risk.</li> </ul>
<b>Electronic Marketing</b>	<ul style="list-style-type: none"> <li>* Lower costs of shipping, inspecting and buying cattle.</li> <li>* Standardized terms, more buyers—increased price efficiency.</li> </ul>	<ul style="list-style-type: none"> <li>* Infrequent sales.</li> <li>* Discounts likely for small lots.</li> </ul>
<b>Private Treaty</b>	<ul style="list-style-type: none"> <li>* Terms can be tailored to specific situation.</li> <li>* Can develop a long-standing reputation and business relationship.</li> </ul>	<ul style="list-style-type: none"> <li>* Few buyers may be interested in making a bid.</li> <li>* Integrity of buyer can be questionable regarding settlement price.</li> </ul>
<b>Local Auction</b>	<ul style="list-style-type: none"> <li>* Auction insures legitimacy of buyers.</li> <li>* Frequent sales.</li> </ul>	<ul style="list-style-type: none"> <li>* Transportation, shipping, and selling costs high.</li> </ul>
<b>Special Auction</b>	<ul style="list-style-type: none"> <li>* Target buyers for a particular sales.</li> </ul>	<ul style="list-style-type: none"> <li>* Special sale may be a “dud”-may be unsatisfied with sale price.</li> </ul>
<b>Cooperative Arrangements</b>	<ul style="list-style-type: none"> <li>* If cooperative is successful, returns will go back to member patrons.</li> <li>* Cooperation may increase number of buyers.</li> </ul>	<ul style="list-style-type: none"> <li>* May be difficult to get all ranchers to agree on business decisions.</li> <li>* Obtaining equity for forming a cooperative can be difficult.</li> </ul>
<b>Forward Contracting</b>	<ul style="list-style-type: none"> <li>* Can be tailored to specific situation and needs.</li> <li>* No basis risk.</li> </ul>	<ul style="list-style-type: none"> <li>* No upside price potential.</li> </ul>
<b>Hedging with Futures</b>	<ul style="list-style-type: none"> <li>* Widely traded competitive market.</li> <li>* Hedging costs minimal.</li> </ul>	<ul style="list-style-type: none"> <li>* No upside price potential unless basis change is favorable to target basis level.</li> <li>* Basis risk.</li> <li>* Margin monies required.</li> </ul>
<b>Put Option Hedge</b>	<ul style="list-style-type: none"> <li>* Allows for significant upside price potential.</li> <li>* No margin expenses.</li> </ul>	<ul style="list-style-type: none"> <li>* Premium costs can be significant for your minimum price targeted.</li> <li>* Trading sometimes thin.</li> <li>* Basis risk.</li> </ul>
<b>Bull Spread</b>	<ul style="list-style-type: none"> <li>* Premium costs minimal.</li> <li>* Allows for limited upside price gains.</li> <li>* “Wide spreads” generally plausible.</li> </ul>	<ul style="list-style-type: none"> <li>* Trading sometimes thin.</li> <li>* Basis risk.</li> <li>* Margin monies required.</li> </ul>
<b>Bear Spread</b>	<ul style="list-style-type: none"> <li>* Premium costs reduced.</li> <li>* Allows for limited gains in a bearish market.</li> </ul>	<ul style="list-style-type: none"> <li>* Trading generally very thin.</li> <li>* Magnitude of “spreads” limited.</li> <li>* Basis risk.</li> <li>* Margin monies required.</li> </ul>



**FROM:**

Arizona Ranchers' Management Guide  
Russell Gum, George Ruyle, and Richard Rice, Editors.  
Arizona Cooperative Extension

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*Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, James Christenson, Director, Cooperative Extension, College of Agriculture, The University of Arizona.*

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