Tires. Check tire pressure fre-

quently-at least once a month

for normal driving once a day

on an extended motor trip. For

reliable readings, buy a pocket

pressure gauge of your own for

a nominal cost. Rotate tires at

recommended intervals to equa-

Exterior. Wash frequently. Re-

touch chipped paint and remove

rust from chrome; protect both

Interior. Clean and vacuum

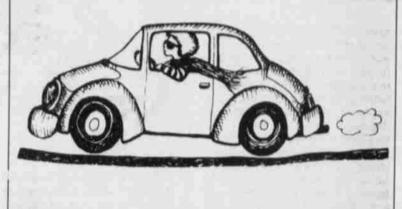
with a special wax or finish.

Protect your investment: Regular maintainance important

If you believe in protecting your investments, then surely you will want to take good care of your car. No one else will assume responsibility for the up keep of its approximately 15,000 parts! Regular maintenance and wise operating practices will extend the car's engine life, improve gas mileage, reduce pollution, maximize car safety, net more on a trade-in. help prevent breakdowns and repair bills, lessen annoyance and inconvenience caused by poor operating performance and even save lives.

Your owner's manual is your best service of maintenance information. Refer to it frequently and follow the manufacturer's time tables for periodic mainte-

Preventive maintenance helps



developing. Various systems and parts should receive routine attention according to the manufacturer's recommendations

Engine Oil. Check when you buy gasoline to make sure it is at the proper level. The oil should keep mechanical problems from be drained and replaced, and

the oil filter changed at every 4,000 miles. This is one of the most important maintenance tasks Chassis, transmission and rear

axle, front wheel bearings and crankcase

Automatic transmission. Check

bands.

Brake fluid. Since it gradually evaporates. The level should be checked every few thousand miles or at six-month intervals.

its fluid level and change when

needed. Regularly adjust the front

Radiator. Add water when needed to maintain coolant at proper strength. This will prevent freezing in winter and keep the engine cool in summer. Change the coolant once a year. Check the radiator hose at least every 12,000 miles for cracks and weak spots.

Air filter or cleaner. There are two types: oil-bath and dry-air. The former should be cleaned with every lubrication at least every six months. Dry-air filters should be thoroughly vacuumed all car repairs at the same interval. Replace these filters as the manufacturer

Fuel filter. This should be

Rinse with water. Become involved in

Practically all disappointments in car repairs can be avoided by selecting a competent, honest mechanic in the first place. Since you may not always have the opportunity for a careful search here are suggestions for avoiding a few of the most common pitfalls you might encounter.

changed every year or so. Fan belt. Test tension period-

Battery. Keep it full. Check

water level monthly in winter;

weekly in a warm, dry climate.

Use distilled water if the mineral

content of your local water is

high. To prolong the life of the

battery, clean the top occasion-

ally. Use rubber gloves, a sturdy

brush and a mixture of baking

soda and water, taking care not

to get any inside the battery.

ically to see if worn.

Call ahead for an appointment unless it is an emergency situation.

Present a list of repairs and replacements stated there, and you are obliged to pay for them. Make sure you understand the order fully, and that only the work you want done is included.

Ask for a fully itemized estimate before signing the work order. If dissatisfied, you would be wise to obtain another estimate at a different repair shop. If the exact nature of the problem and the repair charges are unknown, write your name and phone number on the work order, with instructions to be called for authorization before the needed repairs are made.

Request an itemized bill for all parts, the labor involved in each job and any other charges. Make sure you are not being

charged for unauthorized work. If the price of a part seems high, ask to see a price list. Have the mechanic save the old parts for you to see. If used or rebuilt one have been installed, this should be so stated on the bill. If the car is under warranty, ask for an itemized account of the work done and save your receipts.

If the required repair work was substantial, ask the service manager to accompany you on a test drive. If the car still does not perform satisfactorily, it is up to the mechanic to correct the problem-before you pay and drive away!

If the agency gives warranties on its labor and parts, make sure that you get a separate signed guarantee or one written on the bill, specificying its terms.

By all means discuss any reservations you may have about the bill with the manager or owner, but don't refuse to pay it. A mechanic's lien could be levied against your car, permitting the service agency to sell it in order to collect. Better pay up and then complain to the proper authorities.

Hay sellers list is available at the Extension Office Call 553-1161, ext. 238

Electric fences are alternative to conventional wire

The conventional fence used in the U.S. has been traditionally the barbed wire, particularly in the west. The cost for the barbed wire fence has been increasing due to increased cost of wire, need of a great many fence posts (wood or steel) and the number of wires needed to keep a certain species in or out. This increase in cost has caused producers to look for other suitable alternatives.

The electric fence of today is usually associated with development in New Zealand or Australia. This type of fence has advantages and disadvantages, depending on its basic need. The main advantage of the electric fence is that less material is required to do a specific job. For example, if an area is to be divided, usually two to four wires are needed, whereas for predator protection as many as eight to 10 may be used. The key to the job, of course, is the use of electricity. The charged lines allow for only two to four wires for area separation.

A second plus is the amount of post material used. Some retailers indicate a ¼ mile pull on flat land with no poles in between the stretch posts. The wires are kept separated by Tposts (fiberglass) or stays (wood). Since the fiberglass posts do not conduct electricity, the old porcelain insulators are no

men take inventory of the herd.

analyze production data, and

begin planning for the next pro-

duction. This includes evalua-

tion of bull performance and

anticipating needs for next spring.

and begin the selection process.

physical and breed characteris-

tics are examined but produc-

tion records and economics are

often overlooked. Criteria for

buying a bull often comes down

to the "eye appeal" of the bull

and a max price. The price may

restrict the cattlemen and actu-

ally cost more money in the

Production records are a must

when comparing the value of a

bull. With the advent of compu-

ters, breed association can per-

form complex calculation to come

up with value to directly com-

long run.

As cattlemen evaluate this need

Now is the time to

take herd inventory

Fall is the time when cattle- rence (EPD) is one sucn tool.

longer needed.

A third advantage is maintenance. The wire is high tension and can withstand a higher stretching point than barbed wire. The wire is attached to permanent wire strainers at the corners which allow for unwinding or retightening for the job at hand. The wire is completely galvanized #8 or #12 guage.

A fourth plus, in the large spans, is that gates are not needed for vehicles. The wire may be pushed down and driven over except when the electrical charge is on. The wire will then spring back to its original posi-

Every system has some disadvantages. One is the influence of electricity. If the electrical charge is lost, a two- or fourwire system provides little deterrent to the animals. When batteries are used where regular AC current is not available, you can have problems with theft or vandalism. Second, the T-post and smaller stays cannot take the intense heat of a range fire. Third, the line must be grounded properly to work. If the area is

arid, this may become a problem. The cost of electric fence is noticeably lower than conventional fencing. Depending on the number of wires used and the company you may talk with, you may realize a savings of 25 percent to 50 percent.

The cost of building conven- worthwhile for you to look at the tional fence today makes it alternative methods.

The best time to cull cows

Traditionally, western cow-calf producers have sent cull cows to the auction soon after they are brought off summer ranges and their calves have been weaned. These cows may have been culled for any one of a number of different reasons. including age, conditional or they are open

Are October and November the best time to sell these cull cows? It depends on the condition of the cow, cost of feed and current prices, as well as price prospects for the spring and a producer's ability to assume risk. Cow prices generally are lower during October and November because of seasonal increases in cow slaughter, so there may be some advantages to delay-

ing marketing.
A look at a California auction provides an example of the seasonal difference in cow prices. Utility two or three slaughter cows at Dixon, California averaged \$39.27 per cwt. for October 1080 through 1985. Utility two or three prices for the same years, averaged \$44.83 per cwt. for March and April about \$5.50 per cwt. over the fall prices.

The seasonal price difference between fall and early spring has provided opportunities for two other factors that appear to support a positive price trend this year.

1. Sharply reduced cow slaughter which will support a continuation of stronger prices and, 2. The Dairy Termination Pro-

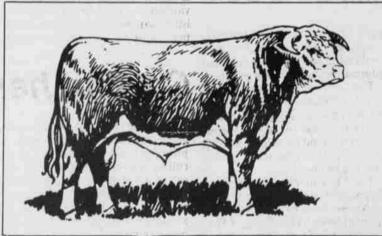
gram ended on August 31. The decision to overwinter cull cows must take into consideration the additional cost and be made on an individual basis. Three important considerations are:

1. Availability, cost and quality of feed.

2. The cow's condition. Will she live through the winter?

3. Are you willing to make the extra effort to manage these cull cows more intensively than

When, where and how to buy the best bulls



average herd. Sire B would be expected to increase birth weight 1.5 lbs. and increase weaning weight by 35 lbs. This information will help place comparitive value on the two bulls. Assume e oull will breed

The EPD's are used to estimate

the increase are decreased ex-

pected in a production trait if a

given bull is used. For example,

in the table below, Sire A would

be expected to decrease bull

weight, .5 lbs while increasing

weaning weight by 15 lbs. in an

25 cows each year for four years, or 100 cows. Calves sold from Sire B will expected to average 20 lbs. more at weaning or a total of 2,000 lbs. more beef over four years if the calves are worth \$70.00 per pound. The additional income from Sire B will be \$1,400.

pare expected bull performance. Expected programming diffe-SIRE BIRTH WEANING YEARLING AB -0.5 +25 +15 +1.5 +50

Buying bulls is a challenging task and extremely important to the success of a breeding program. While it is often said "a bull is half the herd," research tells us that fully 80 to 90 percent of the progress made in a breeding program will come through proper bull selection, Proper planning, research and the application of sound animal breeding information can result in the when a bull has a high degree of libido or sex drive, is reproductively sound and is producing ample quantities of high quality semen. Soundness and semen quality can be evaluated best by a veterinarian giving a breeding soundness exam.

What age bull to buy There is no single age of bull to purchase that seems to work

best for all ranchers. Some choose to buy bulls as weaner calves, some as yearlings, and some prefer to purchase bulls just before turn out time. There are advantages and disadvantages associated with each.

Yearlings-Many producers have expressed a preference for buying yearlings. Bulls should have a complete performance record by this age. Through a post-weaning feed test the bulls will have been well developed, yet they should still be in a physical condition conducive to breeding soundness.

Those who have the most success with yearling bulls give them extra management, much as they do with first-calf heifers. Yearings should be used with other bulls of the same size and weight and should be used on about half as many cows as are mature bulls. They also should be kept separate and given extra supplement following their first breeding season to encourage further growth and development.

Two-year olds-Buying strongaged bulls eliminates many of the problems attributable to young bulls. They are nearly mature, so they can be used successfully with older bulls.

However, two-year-old bulls are not always available in good supply. Those that are available may be the leftovers, after the yearling buyers finished making their selections. Excessive condition and lack of physical fitness may be more of a problem with long-age bulls. Also one year of potentially productive life is already behind them.

Where to buy bulls

The simplified answer to this question is where one can get the best bulls for the dollars invested. Considering the importance of bulls to the breeding program and the serious herd health implications, it is

imperative that cattlemen buy How to buy bulls bulls where they can be assured This means buy bulls with known background from a reputable breeder.

Consignment sales-This common means of acquiring bulls usually is a source of strongage bulls that represent the top end of the production from many herds. Consignment sales are a costly way to merchandise bulls because of the sales and travel cost involved. Obviously, these extra costs must be recovered for consignors to continue to patronize them.

There is seldom meaningful performance data available on a arge proportion of the bulls.

Bull tests-This relatively recent arrival in the arena of bull marketing usually includes a large amount of meaningful performance data. This data can be used to compare the genetic worth of individual bulls and give some indication of between herd differences.

Bull test consignments usually represent the top end of the herds from which they come, so the quality of bulls is generally excellent. Most bull tests require that bulls attain a certain productive level and pass a breeding soundness exam to qualify for this sale. This ensures the buyer of a highly desirable product.

At-the-ranch-buying—There is much that can be said for buying at the ranch. First, you are dealing directy with the man or company who produced the bulls, so he can be asked any questions you might have about the cattle. Being on the ranch gives the buyer a chance to see firsthand the purebred producer's total production program, including both the genetic and developmental aspects.

It is certainly a good idea to inspect the herd sires and brood cows that produced the bulls under consideration. Do they appear to be a hard working, functional herd that is free of obvious genetic problems (bad udders, eyes or feet)? Have the bulls been raised in such a way as to prepare them for a long, active life in the breeding pas-

Inspect also the records that are available on the cattle. Does the producer have a complete performance program? Has he been using the records to make progress in those traits that are of economic importance to the commercial industry?

The two systems by which of genetic worth and, even more most bulls are sold is through important, a clean bill of health. private treaty dealing of the buyer and seller and public auction. Private treaty purchasing allows one to make decisions at his own pace without undue pressure.

When a breeder has a production sale, generally the entire bull production will be offered in a single day with the buyers setting the fair market value for each individual by the price they are willing to pay for him. However, a successful auction is a fast-paced, competitive event where a large number of cattle are sold in a hurry, requiring split secoind decisions.

Successful auction sale buying requires adequate pre-sale preparation. The buyer should study the catalog thoroughly prior to the day of the sale; make a list of all bulls to be considered based on the bull's performance data in the catalog; arrive early on sale day to thoroughly inspect the entire offering; make a definite decision before the sale which bulls are of interest and their individual

A sound decision that will affect long-range breeding results should not be made on the spur of the moment in the carnival atmosphere of an auction.

Locations for bull buying As stated earlier, one should

buy bulls where he can get the most for his money. However, there are some definite advantages to buying bulls in the locale where they will be used. The bulls should be adapted to the topography and climate.

Condition of bulls to buy The problems with excessive

finish on a set of bulls are many and should be the concern of every bull buyer. Fat bulls are usually in poor physical condition and must be hardened-up before they will be ready for the breeding season.

The excessive concentrates that it takes to make bulls fat can have an adverse effect on the soundness of bulls. Founder and other foot problems are more prevalent in bulls that are extremely high in condition.

Finally, the feed required to makes a bull fat is expensive. It is the bull buyer who ultimately must pay for it. The best policy in this regard is to buy bulls that are well developed, but are presented in a good, thrifty condition.

Miscellaneous buying tips given

Make purchases count

Buying on impulse can increase your grocery bill. The items you buy on impulse are probably the items you need least. Planning is the key to avoid impulse buying.

Read newspaper food ads. Stock on sale items for future use. If storage space permits.

Make a shopping list and stick Shop after eating. Hunger may

tempt you to over buy. Two-for-one items are a savings only if you can use both

Free samples of foods and drinks are given to shoppers to encourage them to purchase these items. defore you buy them, make sure you really want

them and will use them. Shopping with family or friends can result in impulse buying as "their" selections jump into "your"

shopping cart. Saying "no" to their impulse selection may be hard at fist. But it will help you stick to your plan.

Chuck vs sirloin Which is better?

Although there's a big difference in price, there is little difference in the amount of protein between these cuts of meat.

Select cuts that give the most lean meat for the money. Avoid cuts with large amounts of gristle, bone and fat.

Cuts of meat containing more fat are usually more tender. However, these are usually more expensive than leaner cuts. Therefore, buy meat with only enough fat to enhance the flavor.

Choose low-cost sources of protein like fish, chicken and turkey, liver and other organ meats, eggs, milk and other dairy products, legumes, such as dry beans, peas and lentils, and nuts.

Eggs-Which size?

No matter what size you buy, eggs are an excellent and inexpensive source of protein. Make eggs a part of your main meals by serving omelettes, quiches and other egg dishes. Remember, if larger eggs are 7¢ more than the smaller size, the smaller size if probably the better buy.

Buy fresh

Buy fresh fruits and vegetables during their peak growing seasons

Prepare foods yourself if you have the time. Don't take alot of extra money along. You can't spend what

you don't have. If the store runs out of a sale item, ask for a raincheck. It's not your fault they ran out.

Check to see that the advertised sale price is the price marked on the package. Don't pay for someone else's mistake.