MANAGEMENT

Angus Advisor

▶ **SEPTEMBER** herd management tips

Southeastern Region

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General recommendations

Minimizing mycotoxin risk. Certain species of fungi (molds) produce toxic substances called mycotoxins. These fungi may be found growing on feed, silage or hay in the field or in storage. Most mycotoxin production occurs in the field before harvest, but poor storage practices can increase already existing mycotoxin levels. Mycotoxins can cause cattle health and productivity problems at very low dosages. Mycotoxins are not necessarily produced whenever feed or forage becomes moldy, but evidence of mold indicates a risk of toxins. In addition, fungi growth may be present but undetectable upon casual observation.

Producers are sometimes faced with decisions on feeding moldy feeds or forages. With feed prices relatively high, it may be tempting to use moldy feed or forage supplies in beef cattle nutrition programs. It is important to recognize risky feeding situations and to be familiar with the potential effects of feeding moldy feedstuffs. In cases of disease outbreaks and reproductive problems where feed is a potential culprit, the feed in question should be removed from cattle diets and tested for a full range of mycotoxins. Large operations should consider routinely screening feeds for mycotoxins.

Mycotoxin formation risk can be minimized by frequent drying and cleaning (scraping) feed storage bins. Caked material and moisture should be removed during routine feed storage facility cleaning to reduce mold and mycotoxin contamination. Storage of commodities under low (less than 14%) moisture conditions will minimize fungal growth and mycotoxin production. Facility maintenance must be sufficient to protect feed supplies from moisture. Adequately drying grains prior to storage and keeping grains free of insect damage may decrease mycotoxin occurrence. Silage and baleage will not typically undergo molding in the ensiling container but may mold when exposed to oxygen out of storage.

Nutritional management. It is not too early to determine winter supplementation needs based on the forage situation. Plan winter grazing and feeding programs, evaluating cool-season pasture options and byproduct commodity alternatives. Monitor commodity prices, and purchase supplemental feed for winter as appropriate. Stocker operators should continue to be flexible in determining the number of head to purchase and then stock pastures according to current and projected available forage amounts. Portable electric fencing is an excellent tool for implementing rotational-grazing, limit-grazing, strip-grazing or creep-grazing systems. MiG systems are essential for stretching forage supplies and associated expense outlays to improve profit margins. Provide proper mineral supplementation and fresh water at all times, checking these supplies often.

Watch for fall armyworms in pastures and hayfields. Manage pastures to rotationally graze young growth, or harvest excess forage for hay. Overgrown pastures may need to be clipped. Watch Dallis grass pastures for ergot contamination, and clip seedheads if necessary. Ergot poisoning is most common in warm-season grasses in late-summer or early fall as seedheads reach maturity. Avoid grazing heavily nitrogen-fertilized Sudan grass, sorghum-Sudan hybrid or pearl millet pastures during drought or cool, cloudy weather. If cattle are grazed on these pastures, they should be observed carefully for signs of nitrate poisoning.

Graze or clip pastures closely where winter annuals will be overseeded before planting. Plant and fertilize cool-season forages. Fertilize hay fields between cuttings or on a regular interval to replace soil nutrients removed by hay production and to improve hay yield and quality. Potassium fertilization is particularly important for Bermuda grass fields going into autumn and winter. Using soil tests for fertilization program planning can help optimize fertilizer investments. Apply lime as indicated by soil analysis results to make the most of fertilizer applications.

Harvest remaining hay cuttings as needed. Record hay yields, forage-test each cutting, and develop a hay storage program that will minimize storage losses and allow matching of forage test results with individual lots of hay for use in hay feeding and supplementation decisions. Inventory hay supplies and determine if additional hay is needed. Continue to maintain hay-harvesting equipment.

Health management. Continue to monitor heat stress conditions, and implement practices that reduce cattle stress during hot weather. Arrange to work cattle during cooler parts of the day. Work cattle early in the morning before the temperature rises to uncomfortable levels. Limit the amount of time cattle must spend in a confined area with limited air movement when working cattle. If cattle remain in a confined area for an extended period, provide access to fresh, cool water.

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Guide to abbreviations and acronyms

To make the "Angus Advisor" more concise and consistent, we have used the following abbreviations or expressions:

$Values	dollar value indexes
AI	artificial insemination
ADG	average daily gain
BCS	body condition score
BLV	bovine leukemia virus
BMP	best management practices
BQA	beef quality assurance
BRD	bovine respiratory disease
BRSV	bovine respiratory synctial virus
brucellosis	Bang's disease
BSE	bovine spongiform encephalopathy
BVD	bovine viral diarrhea
Ca	calcium
DM	dry matter
EPD	expected progeny difference
FMD	foot-and-mouth disease
GnRH	gonadotropin-releasing hormone
IBR	infectious bovine rhinotracheitis
ID	identification
IM	intramuscular
in.	inch
lb.	pound
lepto	leptospirosis
Mg	magnesium
MiG	management-intensive grazing
MLV	modified-live virus
N	nitrogen
P	phosphorus
PI	persistent infection
PI_3	parainfluenza-3 virus
preg-check	pregnancy-check
Se	selenium
sq. ft.	square feet
TB	bovine tuberculosis
THI	temperature-humidity index
trich	trichomoniasis
Zn	zinc

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Make sure adequate shade is available for cattle in the summer months. Artificial shades should be constructed to be from 7 ft. to 14 ft. high and covered with shade cloth to allow air movement. A minimum recommendation is to provide shade at 80% of the requirement. Minimum shade requirements are 18 sq. ft. per head for 400-lb. calves and 25 sq. ft. per head for 800-lb. stockers.

Horn and face fly season continues in many areas of the region. Monitor fly numbers to determine if additional control measures are needed. Remove insecticidal fly tags as they become ineffective, and implement additional control methods. Continue to watch for pinkeye problems. Consider options for anaplasmosis control, as biting insects remain abundant.

Internal parasite control practices are another component in a complete herd health program developed in consultation with a veterinarian. Check cattle for cancer eye and foot rot. BQA-consistent practices should be included in the health program. Vaccinate all calves more than 3 months old for blackleg. Check with a veterinarian for state guidelines on calfhood brucellosis vaccination programs for heifers.

Many states offer disease monitoring and certification programs for beef cattle operations. Johne's disease and PI-BVD programs are examples of animal health programs available in the region. Ask a local or state veterinarian about available state animal health programs. Apply for a ranch premises ID number from the state veterinarian's office if not already done. This is a key component of disease and disaster preparedness for beef cattle operations throughout the entire region. Producers with valid premises IDs should consider use of official 840 ear tags for animal ID.

Develop a ranch-level disease and disaster preparedness plan. Local Extension agents and veterinarians can assist in these planning efforts.

Marketing and financial management. With input prices still relatively high, managing operations based on unit cost of production is now more critical than ever. Small- and large-scale producers may benefit from forming alliances with neighbors for group cattle marketing and bulk input purchase endeavors.

Continue good production and financial recordkeeping. Enterprise budgeting and cash flow analyses are worthwhile exercises. The information from these budgets and reports can be used to make knowledgeable production and marketing decisions.

Many feeder calf marketing programs are in full swing this time of year. Take advantage of programs such as AngusSource.®

Spring-calving herds

Calf preconditioning, weaning and marketing. Prepare for working fall cattle by determining vaccination, deworming and implant needs and acquiring supplies ahead of time. Check and repair working facilities for weaning. Make sure fences where weaned calves will be placed are in good shape, and repair fences where needed. Wean calves based on market and pasture conditions using weaning strategies that minimize calf stress. Avoid weaning calves during extremely

Western Region

*by **Randy Perry,** California State University, Fresno, randyp@csufresno.edu*

Fall-calving herds

The main focus is the calving season.

Genetic management

Operational goals. The next few years are going to be extremely challenging for the purebred cattle industry. It is paramount that breeders spend some time evaluating the goals of their operation from a genetic standpoint. Is the focus of your operation to raise bulls for the commercial cattle industry? Or is your focus to raise show heifers for your children or for other juniors?

Many people believe that similar sires should be used regardless of what type of operation is selected. I don't agree. In my opinion, today's purebred business is too competitive and your genetic selection has to be tailored to the goals of your operation.

Sire selection. I have talked about sire selection in every month's column because of its importance in a purebred cattle operation. Although the breeding season is still months away, now is the time to start developing a list of potential AI sires. Again, I will emphasize the importance of using sires that will produce females that will contribute to herd improvement. Because of record-high feed and fuel prices, we are seeing a move toward lower-maintenance genetics.

Reproductive management

Calving management. Supplies should be on hand and proper equipment should be available to assist females with problems at calving. Be sure that your personnel are properly trained in the most current procedures recommended for assisting females that are experiencing calving difficulties. As calves are tagged and weighed at birth, their naval stumps should be dipped or sprayed with a mild iodine or betadine product. In addition, if you are in a selenium-deficient area, they should receive a selenium injection at birth.

In order for maximal absorption of maternal antibodies, calves should nurse within the first six hours after birth. A supply of frozen colostrum should be on hand and should be replaced at the start of each calving season. The best source is a mature, heavy-milking cow that calves early in the calving season. She should be milked out shortly after her own calf nurses. Do not freeze all the product in one bag; rather, divide it into the proper amount that would be fed to a newborn calf (about one-half of a calf bottle) prior to freezing. In addition, be certain that females are being monitored for the incidence of retained placenta. If problems arise, treat them promptly.

Nutritional management

Mineral supplementation. Be sure that cows are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area. Minerals should be supplemented on a year-round basis and can be varied depending on the time of the year and available forage resources. Mineral boluses or injectable products can be used in addition to loose or block mineral products.

Body condition. The target level of body condition at calving is a BCS of 5 (scale = 1 to 9) for mature cows and 6 for 2-year-old heifers. Ideally, this level of body condition should be maintained during the breeding season. However, this is difficult to achieve, especially with cows that have extremely high levels of milk production.

Protein and energy supplementation. Both protein and energy requirements need to be met in order to achieve the desired level of body condition as described in the previous paragraph. The challenge this year is going to be the price of supplements. Supplements should be compared on a price per unit of either protein or energy, depending on which nutrient is the most limiting in your situation. In general, if forage is available and is poor in terms of quality then protein will be the most limiting nutrient. If the availability of forage is the problem, then energy will be the most limiting nutrient.

Health management

Treatment protocol. Have treatment protocols and products on hand for both scours and pneumonia in suckling calves. If cows are calving on irrigated pastures, be prepared to have a higher incidence of scours in young calves. You are well advised to have first- and

hot periods if possible, and arrange for calf comfort during these times. Make sure that registered cattle are weaned within weaning age windows accepted by the respective breed associations.

Weigh calves at weaning. Report weaning data on registered cattle to breed associations in a timely manner. Weaning performance reports include adjusted weaning weights and ratios and should be used by both seedstock and commercial operations in determining which cattle to retain and which cattle to market. Identify and cull bulls that have sired calf groups that are well below the herd average for economically relevant traits. Monitor herd performance and nutritional status by recording weights and cow BCS at weaning. Assess weaning percentage (calves weaned per cows exposed to breeding) and cow efficiency (calf weight per cow weight).

Plan to wean calves at least 45 days before shipment of calves off the ranch. To precondition calves, vaccinate and revaccinate for respiratory and other diseases based upon veterinary advice. Castrate and dehorn late calves if not done previously. Train calves to eat from a bunk and drink from a water trough during the preconditioning period. Continue a high level of nutritional management for early-weaned calves.

Implement calf preconditioning, marketing or retained ownership plans as appropriate considering seasonal price risks and breakevens on calves. Run a breakeven analysis on retained ownership options, including stocker and finishing programs. Consider risk management strategies before finalizing marketing plans. Calf verification programs may be an attractive option for feeder-calf marketing. Prepare for special feeder-calf sales as appropriate. Breeders should share information on breed association-sponsored feeder calf marketing programs with bull customers to help in marketing their calves.

Breeding herd management. Allow bulls to rest and regain condition in small pasture traps on an adequate nutritional program. Market bulls that will not be used in future breeding seasons. Review and complete breeding records including heat detection records, AI dates, dates bulls are turned in and out, ID of herd females and breeding groups, dates bred, returns to heat, and expected calving dates. Plan to pregnancy-check herd females about 60 days after the end of the breeding season. Consider marketing late-calving females that do not fit the chosen calving season.

Implement an effective culling procedure for less-productive or problem cattle. After weaning, cull cows based on pregnancy status, soundness (eyes, udders, feet, legs and teeth), health status and performance records. Develop plans for marketing cows based on market conditions and cow body condition. Manage market cows in keeping with BQA guidelines. Establish permanent ID (tattoos or brands) for bred heifers that will remain in the herd, and make plans to market open heifers.

Nutritional management. Use weaning weights to put a heifer development program in action to reach target breeding weights by the start of the next breeding season, keeping an eye on declining forage quality. Heifers

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second-treatment options for both conditions, and be sure the protocols have been communicated to the appropriate personnel.

Spring-calving herds

The main focus is to prepare for weaning.

Reproductive management

Pregnancy-check. Cows should be pregnancy-checked at weaning time. Avoid holding over open cows, even if they have been excellent producers, as typically the problem will recur. In addition, open cows that are held over steal the profits from cows that are weaning calves. The rule of thumb is that it takes the profits from four cows that are weaning calves to cover the losses associated with each open cow that is held over.

Nutritional management

Supplementation. The comments concerning mineral supplementation for fall-calving cows would also apply to spring-calving cows. In terms of protein and energy supplementation, usually spring-calving cows can perform adequately without supplementation at this time of year as long as forage is available.

Heifer and bull development. The developmental period from weaning until yearling time and beyond to the start of the breeding period is critical in terms of influencing the future productivity of both bulls and heifers. Both sexes need to be developed at adequate rates of gain so that differences in terms of genetic potential for growth can be exhibited. However, neither sex should be developed at extremely high rates as excessive fat deposition can hinder future reproductive performance and detrimentally affect foot and leg soundness. Our target levels of ADG between weaning and yearling in our program are 1.5 lb. per head per day for heifers and 3 lb. per head per day for bulls.

Because of the value of complete contemporary groups, many breeders have retained below-average bulls and heifers and developed them until yearling measurements were recorded before they were culled. With current feed costs, this practice is probably not economically feasible this year.

Health management

Weaned calves. Calves should be administered preweaning vaccinations for the respiratory disease complex at least two to three weeks prior to weaning. After weaning, they should be treated to control internal and external parasites and heifer calves should be Bang's-vaccinated. Both bulls and heifers should be PI-BVD tested if that is part of your animal health management program.

The first 30 days after weaning is the most critical period concerning problems with BRD in cattle. If calves are exposed to dusty lots, run a sprinkler or water wagon — it will more than pay for itself. Consider pasture weaning if you have the facilities to accommodate this management technique. Minimal electric fencing can be used quite successfully, and I am confident that you will see major reductions in the incidence and severity of respiratory disease associated with weaning.

Pregnant cows. If late-term abortions have been a problem in the past, consider booster vaccinations for the respiratory diseases and leptospirosis at pregnancy-check. Some producers may be only vaccinating at pregnancy-check; however, we prefer to vaccinate between calving and breeding and then revaccinate at pregnancy-check for diseases that are a problem. Provided that cows are vaccinated prior to breeding with the same product, a number of MLV are now approved for use in pregnant cows.

General management

Marketing program. Marketing ability is one of the key factors that determine economic performance in a purebred cattle operation. As times become more challenging, a sound and creative marketing program becomes even more important. Many people simply reduce the amount of advertising as times become more challenging. However, creative and well-placed advertising is now more important than ever.

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will likely need to grow at a rate of 1-1.5 lb. per day. Continue to monitor bull body condition to make sure bulls are in good condition (target BCS of 6) at the start of the next breeding season. Provide additional nutrients to thin or growing bulls. Implement a nutritional program to get thin cows in proper body condition before next calving.

Fall-calving herds

Calving management. Fall calving is now in progress for many herds in the Southeast. Complete any remaining preparations for the fall-calving season. Separate the cow herd into calving and nutritional management groups. Cows need to be in moderately good condition prior to calving. Purchase or assemble calving supplies, including calf ID tags and obstetric equipment. Move fall-calving heifers and cows close to handling facilities and observe cattle frequently. Manage late-gestation females in calving pastures with adequate shade. After calving, plan to move cow-calf pairs to clean pasture to minimize calf health risk.

Yearling management. Review yearling data collection age windows. Weigh yearling cattle and collect other yearling data such as hip heights, scrotal circumference measurements, temperament scores and ultrasound body composition data. Schedule an ultrasound field technician well in advance of needing this service. Report complete yearling data to breed associations in a timely manner. Use the resulting yearling performance reports to further cull yearling cattle. Yearling cattle are still growing and should continue to be managed to meet their nutrient needs. Reserving higher-quality forages and feedstuffs for growing cattle is warranted.

Breeding herd management. Consult with a veterinarian for scheduling prebreeding vaccination needs well in advance of breeding season. Maintain bulls in small pasture traps with effective fences, and manage bulls to start the next breeding season in good condition. Begin to evaluate herd sire options for the next breeding season. Request information on upcoming bull sales. Continue to monitor heifer development by checking weights and adjusting nutrition to meet breeding targets later this year.

Southern Great Plains

*by **David Lalman,** Oklahoma State University, dlalman@okstate.edu*

Spring-calving herds

1. Consult your veterinarian to plan the vaccination program for spring-born calves and spring-calving cows. Purchase the necessary supplies. An ideal situation is to vaccinate two to six weeks prior to weaning and again at weaning.
2. Consider weaning calves earlier than normal if cows are thin (BCS 4 or less), particularly 2- and 3-year-old cows and cows that are 10 years or older. The Oklahoma Panhandle region and southern Texas have suffered through extreme drought conditions for some time now. Consequently, pastures are short in these areas and homegrown hay supplies are nonexistent. Short of selling cows, there is no better way to reduce forage need on a ranch than to early-wean calves. By removing the nutrient requirement for lactation, cow energy needs are reduced by some 50%. Calves can be maintained in a drylot and are very efficient converters of well-balanced feeding programs.
3. In other parts of the Southern Great Plains, precipitation has been adequate to excessive. In areas with excessive rainfall through early and midsummer, special attention will need to be given to the fall parasite control program and to forage quality going into winter. Higher-than-normal precipitation generally exacerbates parasite problems and reduces forage quality.

Fall-calving herds

1. The calving season for fall herds in this region will be in full swing during the month of September. Calves should be individually identified and weighed within 24 hours of birth, if possible.
2. Identify herd sires to be used in the AI program.
3. Continue the newly weaned bulls and heifers on the highest-quality pasture available and provide a supplement such as in the Oklahoma Gold program (1 lb. per day of high-protein supplement with an ionophore) for cattle grazing native grass pasture or low-quality Bermuda grass pasture.

General recommendations

1. Forage availability, water supply and forage quality conditions vary dramatically across the Southern Great Plains region. Once again this year, managers should be prepared to deal with low-quality hay and standing forage. We are strongly encouraging people to sample and test their forage. Forage testing and monitoring cow condition are the best tools to use in determining an appropriate nutrition program for fall and winter.
2. Concentration of critical minerals in forage declines as forage matures and as leaf-to-stem ratio declines from grazing pressure. Minerals that are of particular concern in the predominant forage species found in the Southern Great Plains include phosphorus, copper, zinc and selenium. A balanced supply of macrominerals and microminerals is an important component of the overall herd health program, influencing health of weaned calves, as well as reproductive success.
3. Late-summer applications of about 50 lb. per acre of nitrogen can produce high-quality Bermuda grass or fescue pasture from October through December. Pastures should be grazed, hayed or otherwise mowed before the fertilizer application is made. Forage production will be highly dependent on late-summer precipitation.
4. Plan winter pasture program. Prepare seedbeds for small-grain pastures and fertilize according to soil test. Planting early (early September) ensures maximum forage production, whereas planting later enhances grain yield. With the high price of wheat grain, most wheat grazers will need to be prepared to remove cattle from wheat pastures at first-hollow-stem, which occurs around late February.
5. Treat cattle for grubs after heel fly activity ceases, between July 1 and Oct. 1 (dates will differ by region), before larvae reach the back.
6. Identify pasture weed problems to aid in planning control methods needed next spring. Adjust stocking rate and grazing system to control undesirable plants and forage accumulation for prescribed fire.
7. Evaluate cool-season pastures, commercial supplements and bulk feed commodity options for supplemental feed in winter. High-quality grass hay and alfalfa hay from nearby, non-drought-inflicted areas may be a viable option this year due to high feedgrain and oilseed meal prices.
8. Continue supplementation (such as the Oklahoma Gold program) for stocker and replacement heifers grazing moderate- to low-quality pasture.

Midwest Region

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September is when forages mature rapidly, weaning becomes appropriate and weather dictates several key management decisions.

Breeding season

Remove bulls after 60 days with cows or 45 days with heifers. Never use bulls for more than a 90-day breeding season.

Herd nutrition

- Provide ample amounts of clean, fresh drinking water.
- Consider limited-intake creep-feeding if:

– drought conditions develop and persist;
– range conditions limit milk production;
– creep feed and/or grain prices are relatively low; or
– value of gain allows for economic benefits.

- Tips for successful limited-intake creep-feeding include:
  – limit duration to the last 30-75 days before weaning;
  – limit intake to less than 2 lb. per head per day;
  – use an ionophore or other feed additive to maximize efficiency;
  – keep protein levels equal to or greater than 16%; and
  – watch high salt levels; salt may help limit intake, but it can be tough on feeders.
- Prepurchase bulk-rate winter supplementation prior to seasonal price increases.

Herd health

If pinkeye is likely to be a problem, consider the following measures.

Preventive:

- Make sure the herd is receiving adequate dietary vitamins and trace minerals.
- Consider using a medicated trace-mineral package.
- Consider vaccination for pinkeye and IBR.
- Control face flies.
- Clip pastures with tall, coarse grasses that may irritate eyes.
- Provide ample shade.

Therapeutic:

- Administer an IM injection of long-acting oxytetracycline when symptoms are first noticed.
- Shut out irritating sunlight by patching eyes, providing shade, etc.
- Control flies.
- Consult your veterinarian.
- Consider revaccinating any show animals for respiratory diseases.
- Vaccinate suckling calves for IBR, BVD, PI_3, BRSV and possibly pasteurella at least three weeks prior to weaning.
- Revaccinate all calves for blackleg.
- Vaccinate replacement heifers for brucellosis at 4 to 10 months of age.
- Monitor and treat foot rot.

Forage/pasture management

- Enhance grazing distribution by placing mineral mixture away from water sources.
  – Observe pasture weed problems to aid in planning control methods for next spring.
  – Monitor grazing conditions and rotate pastures if possible and/or practical.
  – If pastures will run out in late summer, get ready to provide emergency feeds. Start supplemental feeding to extend grazing before pastures are gone.
  – Harvest and store forages properly. Minimize waste by reducing spoilage.
  – Collect samples of harvested forages and have them analyzed for nitrate and nutrient composition.
  – Plan winter nutrition program through pasture and forage management.
  – For stocker cattle and replacement heifers, supplement maturing grasses with an acceptable degradable intake protein/ionophore (feed additive) supplement.

Reproductive management

- Remove bulls to consolidate calving season.
- Pregnancy-check and age pregnancies 60 days after the end of the breeding season.
- Consider culling cows that are short-bred.

These methods contribute to a more uniform calf crop, make winter nutritional management easier and increase the success rate of next year's breeding season.

General management

- Avoid unnecessary heat stress. Don't handle and/or truck cattle during the heat of the day.
- Repair, replace and improve facilities needed for fall processing.
- Order supplies, vaccines, tags and other products needed at weaning time.
- Consider early weaning if:
  – drought conditions develop and persist;
  – range conditions limit milk production;
  – cows are losing body condition;
  – calf and cull cow prices indicate maximum profit; or
  – facilities and management are available to handle lightweight calves.
- Remember, first-calf heifers have the most to gain from early weaning.
- Resist the temptation to feed cows without weaning; feeding early-weaned calves is more efficient.
- Look for unsound cows that need to be culled from the herd.
- Prepare to have your calf crop weighed and analyzed through your state, regional or breed performance-testing program.
- Document cost of production by participating in Standardized Performance Analysis (SPA) programs.
- Plan your marketing program, including private-treaty sales, consignment sales, test stations, production sales, etc.

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