WATER

IS YOUR CHEAPEST FEED!

While water is not actually a feed, it is necessary for all the vital processes of the body, such as digestion, elimination of waste products, efficient circulation of blood, transfer of heat and regulation of body temperature. To give you an idea of this importance, researchers say that an animal could lose nearly all its fat, and about ½ of its protein and still survive. But a loss of only 1/10 of the water from the body would cause death.

Few livestock suffer from lack of water to the point that they die but many do not get enough water each day to assure maximum gains or production. The two most critical times of the year are extremely hot summer days, and winter.

The needs of water are greatest for livestock which are at a high level of production. For example, a steer on a wintering ration averages about 36 pounds per day. If this same steer is on a fattening ration he needs 72 pounds of water per day—just twice as much. If he can't get this much water, production will suffer. A dry Holstein dairy cow can get by on 10 gallons of water per day, but requires more than 18 gallons if milking. A sow requires 20 pounds of water per day before breeding, 38 pounds per day the week before farrowing and 45 pounds per day the week after farrowing.

Not only is a certain amount of water needed each day, but it must be available when stock want it. In Canadian tests, dairy cows who had water before them at all times produced five and one-half per cent more butterfat than when water was supplied only twice daily. Again the greatest effect of restricted watering will be felt by the high production animals. Often those cows producing at a rather low rate won't show much change.

The only class of livestock that will probably benefit from warming water, other than keeping it from freezing, is poultry. It appears from many tests made by colleges that the chill should be taken off for highest production. Other classes of livestock will probably do about as well on cold water as they will on water that has been warmed, so long as they can obtain it regularly and often. Where water is unusually cold and cattle are forced to drink a large amount at one time feed will have to be used to produce heat to offset the cooling effect. This could reduce gains.

When installing an automatic, heated fountain in the farm water system, be sure the fountain is non-siphoning and follow the manufacturer's directions on wiring to the letter. One way to be sure the fountain will not siphon and contaminate the farm water supply is to buy one which meets the requirements of the U. S. Public Health Service Milk Ordinance and Code. A single driven ground rod or a water pipe is not dependable as a shock preventing ground and must not be used as the only grounding for an electrically-heated fountain. There must be a wire from the frame of the fountain to the neutral or ground side of the circuit. Also, be sure to connect the heater frame to the switch box shell and to a regular ground rod that has been driven at least eight feet deep.

Heating cable is an excellent way to prevent freezing in extended runs of pipe such as those to drinking fountains. Other uses would be to protect pipes that cannot be buried deeply enough in the ground. Two types of cable are available in most areas. The most popular is the ready-made sets which can be plugged into an outlet. The kits include either 60 or 120 feet of cable, depending on whether 115 or 220 volt current is used. If you purchase cable itself and not the kit, better consult your electrician to make sure your wiring is adequate and you use the proper length of cable for the voltage. Never use less than 60 feet of cable for 115 volts or 120 feet for 220 volts. After wrapping or attaching cable to the pipe, it's best to insulate it. Since these cables are controlled by a thermostat, the more insulation the less electricity will be used.