



**RATIONS** for  
LACTATING SOWS

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**T**HE NUTRIENT REQUIREMENTS for lactating sows are similar to the gestation requirements (Cir. A-216), except the need for energy is much greater for lactation. Lactation rations contain limited amounts of bulk (10 to 12 per cent) when compared with gestation rations and contain increased amounts of high energy grains such as corn, oats and barley.

**REQUIREMENTS FOR LACTATION**

Total protein	300 lbs. per ton of ration
Calcium	13 to 14 lbs. per ton or ration
Phosphorus	10 lbs. per ton of ration
Vitamin A	4 million I.U. per ton of ration
Vitamin D	200,000 to 300,000 I.U. per ton of ration
Riboflavin	3,000 mg. per ton of ration
Niacin	20,000 mg. per ton of ration
Pantothenic acid	10,000 mg. per ton of ration
Choline	800,000 mg. per ton of ration
B <sub>12</sub>	10 mg. per ton of ration

**Rations for Sows:**

No one ration is best. Many feeds and ingredients can be used with success if care is used in balancing the rations with the necessary nutrients.

**1. Protein:**

Quality of protein (the level and balance of the essential amino acids) is more important than the actual amounts of protein.

The amino acid requirements of mature swine are not yet known so it is best to add protein of both plant and animal sources. Protein sources such as soybean oil meal, meat scraps, tankage, fishmeal, bloodmeal, milk and its byproducts, are all good supplements to use in combinations of 2 or 3 with cereal grains.

Lactation rations should contain 15 per cent protein. These levels could be reduced 2 per cent when on pasture.

**2. Energy:**

Most cereal grains can be used to provide the energy requirements. Do not use damaged or moldy grains, blighted barley and corn, or ergot infected rye. A combination of the cereal grains is best in lactation rations.

### **3. Minerals:**

Minerals which need special attention are salt, calcium and phosphorus. With feeds commonly fed to sows, salt and calcium will be lacking.

Larger amounts of calcium are required for lactation than gestation and should be supplied by one of the calcium supplements at 0.6 to 0.7 per cent of the ration.

Use iodized or trace mineral salt to prevent the farrowing of hairless pigs.

### **4. Vitamins:**

Lack of vitamins A and D is often critical with lactation rations. Only yellow corn and alfalfa hay supply vitamin A and these feeds can not be depended upon. The problem is greater with vitamin D as sun cured roughages are the only feeds which contain any appreciable amounts.

Some of the B-complex vitamins are often lacking. It is a good insurance to add a commercial vitamin supplement to supply riboflavin, B<sub>12</sub>, pantothenic acid, and sometimes choline and niacin.

### **5. Water:**

Too often a good, clean source of water is overlooked for swine. Water is the cheapest nutrient and good swine management practices mean water available at all times.

### **Suggested Rations:**

The combination of feedstuffs which provides the nutrients most economically is the ration to feed. Lactation rations are best supplemented by the use of commercial protein supplements which supply the additional protein, vitamins and minerals.

Use protein supplements according to the level of protein in the grain and the percentage of protein in the supplement. Most sow supplements range from 30 to 40 per cent protein.

Table I shows the nutrient requirements of a protein supplement according to the per cent protein of the supplement.

**Table I. NUTRIENT REQUIREMENTS IN PROTEIN SUPPLEMENTS.**

Protein in Supple- ment	Calcium	Phosphorus	Vitamin A	Vitamin D	Riboflavin	Niacin	Pantothenic Acid	Choline	B 12
Per Cent	%	%	IU. lb.	IU. lb.	Mg. lb.	Mg. lb.	Mg. lb.	Mg. lb.	Mg. lb.
32	4.0*	2.0*	16,000	1,200	3.6	13	10.00	640	40
35	4.5*	2.2*	18,000	1,350	4.0	15	11.25	720	45
38	5.0*	2.5*	20,000	1,500	4.5	17	12.50	800	50

\* If the supplements do not contain these amounts of calcium and phosphorus, add limestone, bonemeal or dicalcium phosphate to make up the requirement.

**Table II. SUGGESTED RATIIONS**

**A. Using 32 per cent protein supplement:**

200 lbs. of dehydrated alfalfa or alfalfa meal  
 265 lbs. of protein supplement  
 \*1,535 lbs. of barley or oats

\* For each 100 lbs. of corn substituted for oats or barley, add 10 lbs. more protein supplement.

**B. Using 35 per cent protein supplement:**

200 lbs. of dehydrated alfalfa or alfalfa meal  
 245 lbs. of protein supplement  
 \*1,555 lbs. of barley or oats

\* For each 100 lbs. of corn used in place of barley or oats, add 9 lbs. more protein supplement.

**C. Using 38 per cent supplement:**

200 lbs. dehydrated alfalfa or alfalfa meal  
 225 lbs. protein supplement.  
 \*1,575 lbs. oats or barley

\* For each 100 lbs. of corn used to replace barley or oats, add 8 lbs. more protein supplement. If alfalfa is not available, an additional 30 lbs. of protein supplement and 170 lbs. of grain can be substituted for the 200 lbs. of alfalfa.

**Management Practices for Lactation**

1. From 3 to 4 days before farrowing, remove the sows from the feeding area and place in the farrowing barn. Feed from 2 to 4 pounds of feed per day from 48 hours before farrowing.

The ration at this time should be laxative, therefore, it is recommended that wheat bran or linseed oilmeal be used in addition to the regular gestation ration. The ration should also be laxative the first week following farrowing.

Limiting feeding just before farrowing and for 3 to 4 days following farrowing will help eliminate some of the trouble encountered at this time. When full fed, the sows may develop "caked" udders because the baby pigs are unable to consume all the milk produced. In 6 to 7 days the sows should be back on full feed. From this time on, the sows can be self-fed.

If sows are extremely nervous at farrowing time, some additional feed may be required. Water should be available at all times.

2. Proper sanitary measures (Cir. A-305) should be included in your management program.

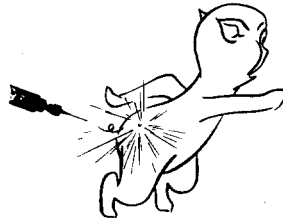
Before the sow is brought into the farrowing pen, the pen should be thoroughly cleaned. Scrub the entire pen with a lye solution of 1 pound of lye to 6 gallons of warm water. Use extreme caution when applying the lye solution and remove all excess lye solution from the pen, allowing time for the pen to dry before the sow enters. This will eliminate the possibility of lye burns to the sow and baby pigs.



Before the sow is placed in the pen, wash with mild soap and warm water to eliminate material sticking to the sow that may contain numerous round worm eggs and bacteria.

3. Clip the needle teeth of the baby pigs at birth to prevent irritation of the sow's udder and possible infection of the udder and of the ears and nose of the baby pigs. The navel cord should also be cut. Make sure the instrument used in the cutting is disinfected. Dip the navel in a tincture iodine solution immediately following cutting to prevent navel infection.
4. Baby pigs should be treated to prevent anemia when farrowed on concrete or wooden floors without access to soil. Many injectable iron preparations are available, but not all are effective in combating anemia. Consult your veterinarian before

buying these products. An iron-copper solution (Cir. A-311) can be applied orally with an oilcan or plastic bottle, or it can be brushed or sprayed onto the sow's udder. This treatment has to be used weekly. However, one injection of an iron preparation 3 to 7 days after birth will be adequate in most cases.



5. One of the causes of death loss in baby pigs is chilling. The baby pig is unable to regulate its body temperature, therefore artificial heat is usually required. The use of heat lamps has become a common practice with most swine producers. Artificial heat not only benefits the baby pigs but also reduces the death loss due to pigs being laid upon by the sow.

Place the heat lamp approximately 18 inches above the pigs at birth, and raise the lamp as the pigs become larger. If too close to the baby pigs there is danger of burns. Be sure to use heat lamps and not infra red lamps.

6. Provide water in low pan for the baby pigs within a day or 2 after farrowing. Provide a good creep ration, fresh daily, for baby pigs 5 to 7 days after farrowing.

