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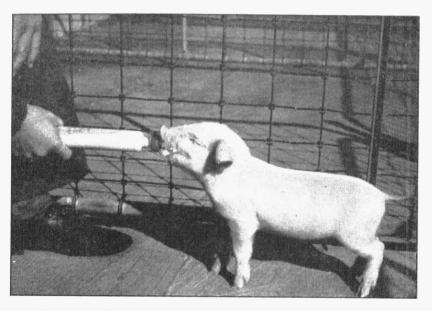
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Rearing Orphan Pigs

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Numerous inquiries are received at the Missouri Experiment Station concerning the rearing of orphan pigs and this circular is published in response to these inquiries and possibly to add to the pig production of the present year.

There are several circumstances which may leave the swine producer with orphan pigs for which he must provide: A sow may have fewer functioning teats than there are pigs in her litter; she may fail to produce milk; she may not claim her pigs; or the sow may die after the pigs are farrowed.

The easiest method of rearing orphan pigs is to transfer them to a sow that can suckle more pigs than are in her own litter. However, this method is possible only when the other sow farrows at about the same time. Furthermore, such a change must be made within a few days after the sow which is to adopt the pigs farrows, because her unused teats soon cease to function. This practice will not succeed unless the foster mother has extra teats which are giving a good flow of milk at the time the transfer is made. Another difficulty is, a sow will not adopt orphans without some persuasion, or deception. It is good practice therefore, to remove the sow which is to become the foster mother from her pen while the extra pigs are being added, and to allow all the pigs to run together for an hour or so before returning the sow. Usually she will then accept the new pigs without hesitation. Sometimes the orphans are slow to accept their new litter mates, and it may be necessary for an attendant to remain with them or to confine them all to a small pen until they become accustomed to each other. However, if the extra pig is hungry and is able to nurse the foster mother, he will soon accept the new environment.

If a sow is not available for the transfer, orphan pigs may be reared by hand, but this method is not always profitable. Unless surplus cow's milk is available, and unless someone has extra time to care for the pigs, it is unprofitable to rear them. To succeed in this enterprise one must give careful attention to all details.

Cow's milk is the most practical substitute for sow's milk, although these two products are not exactly alike. The following table shows the average composition of the two kinds of milk:

	Cow's Milk	Sow's Milk
	(per cent)	(per cent)
Water	87.2	81.0
Fat	3.7	7.0
Protein	3.5	6.0
Sugar	4.9	5.0
Mineral	0.7	1.0

Sow's milk is more concentrated than is cow's milk; it contains a higher percentage of solids, or in other words, less water. Although sow's milk is richer in all constituents than is cow's milk, the chief difference is in the amounts of fat and protein. For the best results then cow's milk should be fortified before it is fed to young pigs, and one would suppose that whole milk powder is ideal for this purpose. However, the common practice is to add either sucrose (cane sugar) or cerelose (corn sugar). About $2\frac{1}{2}$ ounces

of sugar should be added to each quart of milk, and in practice sugar seems to be as effective as whole milk powder. If sugar is not available, corn syrup or cane molasses may be used (about 3 ozs. per quart of milk). Only sweet milk should be fed, as soured milk may cause intestinal disturbances.

Other precautions which should be taken are as follows:

- 1. Feed Often and Regularly.—Young pigs do not have a large food capacity and when raised by a sow, they nurse every hour or two. Therefore, they should be fed every 2 or 3 hours during the first 2 weeks of life; after 2 weeks, the time between feedings may be gradually lengthened to 4 or 6 hours. If the pigs are fed regularly and relatively often, they may be allowed to drink all they want at each feeding. However, if a few feeding periods are missed from time to time, the pigs should not be allowed to overeat at the next feeding. It should be emphasized that young pigs will not thrive unless they are fed frequently.
- 2. Keep Pigs Warm and Dry.—Pigs may survive low temperatures if there are several in a litter and if they can get up close to a sow. When by themselves though they become chilled very easily. This chilling will usually cause diarrhaea and often results in death. It is useless to try to rear a very young pig if it is uncomfortably cold.
- 3. New Born Pigs Must Receive Colostrum.—Unless new born pigs receive colostrum (first milk), they will develop digestive disturbances and will almost invariably die, regardless of the amount of care they receive. For that reason therefore the pigs should be left with the dam until they are 2 or 3 days old. If this is not possible, they should be allowed to nurse another sow which farrowed at about the same time as their dam, or they should be given the milk from a cow that has freshened within the last 2 or 3 days. It is unnecessary to supply colostrum longer than 3 days, and one day may be long enough.
- 4. Cleanliness Pays.—Avoid exposing orphan pigs to filth. Digestive disturbances and other abnormalities may result from dirty utensils and quarters. Give special attention to keeping all utensils clean. While the pigs are young and are learning to drink milk, their mouths should be wiped off with a clean cloth after each feeding.
- 5. Pigs Readily Learn to Drink Cow's Milk.—A young pig learns to take milk readily if he is fed from a bottle equipped with a small nipple, but the hole in the nipple should not be too small, for when a pig nurses naturally he feeds rapidly. However, the

opening should not be so large as to cause the pig to strangle. After the pig learns to take milk readily through a nipple, he may be taught to drink by holding the nipple in a pan of milk, or by gently pushing his mouth slightly below the surface, being careful not to hold it there too long. During the first 2 weeks the milk should be warmed to body temperature before it is fed. This is of special importance while teaching the pig to drink.

6. Clean Water Should Always Be Available.—Be sure that the

pigs have plenty of clean, fresh water available at all times.

7. Prevent the Development of Anemia.—Pigs which do not have access to soil, and which receive no food except milk, will develop anemia in 2 or 3 weeks. To prevent this condition place a piece of sod in one corner of the pen, or add about one-fifth ounce of a saturated solution of iron sulphate (copperas) to each quart of milk. When the pigs are old enough to eat dry feed, or when they are turned out on the ground, they will no longer require copperas.

8. Keep Pigs In Direct Sunlight On Warm Days.—Pigs will develop rickets if they are confined for long periods of time to quarters where they are not exposed to direct sunlight. They should be allowed therefore to sun themselves for a few hours whenever the weather permits. However, suitable protective shade should

be provided during hot weather.

9. Supply Good Quality Solid Feed.—As soon as the pigs reach a weight of about 15 pounds, they should be offered solid feed, although they will not eat much until they are somewhat heavier. Small pigs need a high proportion of good quality protein supplement in their rations, and they require a liberal allowance of minerals and vitamins. Skimmed milk may be substituted for the enriched whole milk after the pigs are eating dry feed in appreciable amounts.

10. Fresh Forage Should Be Available.—Young pigs, as well as older hogs, should have access to good quality pasture when it is available. Although hogs do not consume large amounts of forage,

it is of considerable importance in keeping them thrifty.

Success in rearing orphan pigs requires patience and attention to details. During the last 4 years about 40 pigs have been raised at the Missouri Agricultural Experiment Station on cow's milk or on enriched cow's milk. When the suggestions set forth in this article were followed, the pigs weighed from 30 to 35 pounds at 8 weeks of age.