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Management of the Horse Breeding Herd

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Management of the Horse Breeding Herd

Cooperative Extension Service, Purdue University, West Lafayette, Indiana
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Management of the Horse Breeding Herd

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An increase in the reproductive efficiency of any domesticated band of horses can only be achieved by carefully developing and then strictly adhering to a total management program. Items to be considered in such a program must include the following:

- **Sound selection principles.** Only superior seedstock that exhibit the potential to produce an offspring suited to your needs should be selected. There is no logic in polluting the gene-pool of the future by choosing as potential parents any animals exhibiting ill-temperament, sub-fertility, structural unsoundness or lack of suitability for saddle. Even if many of these traits may not be highly heritable, there is still no reason to risk their propagation for future generations.

- **Total nutritional program.** There is no magic here — only the sensible application of recent research findings to supply the correct amounts of energy, protein, minerals and vitamins. It’s high time to dismiss “old wives tales” and make use of the wide variety of feedstuffs available to the livestock producer.

- **Comprehensive herd health program.** This involves a complete and uninterrupted program of immunizations, parasite control, appropriate housing, foot care and the control of new-horse traffic onto your farm.

- **Sound breeding practices.** A discussion of these practices, what they are and how to apply them, is the scope and intent of this publication. The purpose is to help mare and stallion owners alike arrive at workable decisions when it comes to selecting the breeding system, knowing when to breed, and managing the animals before, during and after the breeding period. The publication also discusses the special nutritional needs of breeding animals, types of records that should be kept and sources of additional information on horse management.

**Breeding Systems**

Establishment of sound breeding practices starts with the decision as to which breeding system best suits your size and type of operation. The choices available are hand mating, pasture mating and artificial insemination.

**Hand Mating**

This is the standard procedure employed by most breeding farms and stallion stations. It involves a handler for the mare, one or more handlers for the stallion and a designated breeding area. Practically, it means taking the stallion and mare “in hand” and controlling both during the breeding process. The following are characteristics of hand mating that should be considered:

1. The stallion is normally expected to cover (breed) approximately 50 mares in a 90- to 120-day breeding season. Certainly, a 2- or 3-year old stallion should not be expected to cover this great a number, while highly fertile, mature stallions can cover more.

2. The conception rate (i.e., mares “getting in foal” or “settling”) will probably approach 80 percent. The remaining 20 percent may reflect problems inherent to the mare, poor breeding management procedures, sub-fertility of the stallion, or “normal” loss due to trauma, unexplained embryonic mortality or difficulties during parturition. The national foaling rate, representing all breeds, all ages, all levels of management expertise, barely exceeds 50 percent.

3. The risk of injury, either disabling or of a blemish nature, to the mare and stallion is very real.

4. The risk of personal injury is high. The mare might strike, kick or bolt and the stallion, bit or strike-out with a flailing hoof — any of which can happen quicker than it takes to read this sentence!
5. Labor requirements are high. While it is possible to function with two handlers, most breeding operations utilize three.

6. It is too easy to book (or accept for breeding) “just one more mare” and consequently overwork the stallion. With overwork, both his libido (sex drive) and fertility can fall to unsatisfactory levels.

Pasture Mating

Pasture mating can correctly be called the original breeding system for horses. In one sense, it is still the best method to settle “problem” mares, if the problem is one of the mares being too highly strung or too nervous. Many nervous mares that do not respond to other breeding management systems will cycle normally and conceive under the more natural pasture conditions. Pasture mating, however, can do nothing to improve the reproductive performance of the mare if she has some anatomical or infectious condition preventing conception.

The following considerations are important to properly evaluate pasture mating as a management alternative.
1. Most mature, fertile stallions can be expected to service a band of 30 mares.
2. Pasture breeding is most successful when the entire band of mares is turned into the stallion’s pasture at one time. Once he has “banded” the mares, a new addition may be rejected by the stallion.
3. The conception rate normally approaches 85 percent. This rate will drop if a large percentage of “problem” mares, a large percentage of poor-condition mares or too short a breeding season is allowed.
4. Pasture mating has the highest risk of stallion or mare injury, but the lowest risk of personal injury.
5. Labor requirements are the lowest, but land investment and fencing costs are highest.
6. This system usually requires a breeding season running from April 15 to August 15. Several late foals can be expected.
7. The stallion is lost to all other duties during the breeding season and may need some reschooling when retrieved at the end of the season.

Artificial Insemination

Many who are strongly in favor of artificial insemination (AI) claim that progress in horse breeding could leap ahead if it were universally practiced. Those strongly against AI argue that it would do little more than procreate more horses and dilute good bloodlines. Wherever the real truth lies, AI should be evaluated as a possible breeding management tool, if within your association guidelines.

The following points should be considered in assessing the feasibility of AI for your operation.
1. The largest number of mares per stallion can be booked with this system. A stallion being used artificially can breed 150 to 200 mares per season.
2. Conception rates to the first heat period will probably approach 50-60 percent; while after three heat periods, they should approach 80-85 percent.
3. Injury risk to stallion and mares is lowest of any breeding system.
4. Highly-trained personnel are a must. Collection of the semen, semen processing and the actual insemination require special techniques. Due to this degree of training, incidence of personal injury is low.
5. Labor requirements are highest of any system, and some relatively expensive equipment is necessary.
6. Possibility of disease transmission is reduced.
7. Restrictive breed association rules may govern your decision as to just how AI may fit into your management program.

Pre-Breeding-Season Checklist

One facet of a total breeding management program often overlooked is the completion of a pre-breeding-season checklist. Whether you are a mare owner or stallion owner, such a list still carries the same importance.

As a mare owner, this checklist may add to your concerns and expenses now, but it may very well save mare-care fees and rebreeding expenses later, to say nothing of getting the foal when you planned for it. For the stallion owner, as the number of outside mares increases so does the degree of variation in their management backgrounds. A stallion owner should not accept problem breeder mares, unhealthy mares or any mare, for that matter, without knowledge of her background in advance.

A workable pre-breeding-season checklist consists of the following:
1. Total health and soundness history, including dates, diagnoses, treatments and prognoses of any injury or disease.
2. Extent, including dates, of training. Many times, mares that come directly off a heavy training program need time to adjust before they are ready to settle.
4. Recent fecal examination or record of the worming program including dates, products and methods of administration.
5. Complete blood count, often conducted shortly after arrival at the breeding farm.
6. Speculum examination of vagina and cervix, often conducted shortly after arrival at the breeding farm.
7. Rectal examination of uterus and ovaries, often conducted shortly after arrival at the breeding farm.
8. Knowledge of the mare’s previous nutritional program. We are finding today that “flushing” the mares may improve the likelihood of conception. Flushing consists of increasing energy intake for approximately 3 weeks prior to breeding. Working up to a 20 to 25 percent increase in energy is recommended.
Teasing & Signs of Heat

Once the book (list of mares to be bred and their arrival dates) has been filled — preferably with a meaningful booking fee, breeding-season labor arranged and all apparent ends tied together — the time arrives to start accepting mares to the barn. A sound breeding operation probably should not encourage "overnighters" (i.e., mares that arrive presumably in heat and whose owners expect to pick them up in 5 or 6 days). The trauma of hauling a mare has a way of breaking up the normal estrous cycle. In addition, it should be foremost in mind that only the teasing stallion knows for sure if the mare is in heat.

The cornerstone of any breeding operation should be the "teasing arena". Teasing is literally what it implies. A stallion that will not be allowed to breed is brought into close proximity to the mare "being teased". Handlers for the stallion and mare observe her actions for signs that she will accept the stallion (that she is "in heat" or simply, "in").

Unlike some other farm species, mares typically do not "ride" or accept being ridden by other mares, or do not become loose and drip from the vulva. The only sure way of determining time to breed, short of daily, rectal palpation of the ovaries, is to tease!

Ideally, a mare should arrive 7-10 days before she is expected to be in estrus (heat). The stallion station should commence teasing on the second or third day after arrival and tease vigorously each day until the mare is determined to be in heat.

There are many ways to tease mares; however, some tried-and-true methods involve some variation of the following:

- **Teasing bar or chute**, where the mare on a lead shank is positioned across a 4-foot high solid barrier from the stallion, also on a lead shank.
- **Aisle teasing**, where the mares are left free, either in their stalls or in a long working chute, and the stallion is brought to their location on a lead shank.
- **Pen teasing**, where the stallion is allowed to run without restraint in some type of enclosure, while the mares in an adjoining enclosure are free to visit with the stallion, as mother nature dictates, across the barrier separating the two pens.
- **Open teasing**, where mare and stallion come into contact without a separating barrier. The stallion is always on the lead shank, while the mares may or may not be restrained. This is the least desirable because of high risk of injury to the handler and is not recommended.

Employing any type of teasing method involves a good knowledge of horse handling and psychology. One must observe very carefully, tease frequently so that small changes in response can be noted and record the status of each mare in a teasing record book.

There is an element of risk for the handlers when teasing. This is no time to relax and shoot-the-breeze. The teasing stallion should be selected on his excitability and visiting prowess, but more importantly, he must be totally controllable.

At this point, we need to introduce the term "standing heat". Standing heat refers to the time that the mare is most willing to accept the stallion — i.e., most willing to stand for the stallion. On the day of standing heat, the mare should be physiologically and psychologically most able to conceive.

When a mare is in "standing heat" or only a day or so on either side of it, she normally will exhibit one or more of the following signs:

1. **Obvious desire for company.** She will seek the close companionship of other mares, geldings or even her handlers. This is not always seen and should not be used as a definitive sign when observed. It may occur 2 or 3 days before standing heat.
2. **Blinking of the vulva.** Normally the mare does this several times after urinating, but spontaneous and continued blinking is one of the more certain signs of approaching estrus.
3. **Squatting, frequent urination, lifting of the tail and blinking of vulva are sure signs of standing heat.**

(Note: The Flehman reaction — curling of the stallion’s upper lip — exhibited when he is teasing a mare is a standard response and should not be considered as indicative of standing heat in the mare.)

When to Breed

The matter of when to breed horses is really a three-part question: (1) when regarding age of the mare should the first breeding take place? (2) when in relation to the time of year is breeding likely to be most successful? and (3) when in this current heat period do we breed?

What Age to Breed?

Really, there are only two choices. One is to breed as a 2-year-old to foal as a 3-year-old, and the other is to breed as a 3-year-old to foal as a 4-year-old (or any age beyond this). Due to the immaturity of the filly, breeding absolutely should not occur before the spring of her 2-year-old year. Breeding at this time enables her to foal as a 3-year-old.

For those raising later-maturing breeds of horses, this is one year too soon. The filly needs more time to grow and mature before taking on the added burden of gestation and lactation. Any filly 3 years or older should certainly be mature enough to breed.

Basically, the decision as to what age to breed is a personal one, but the following should be considered:

1. **Actual calendar age of the filly**, not her show- or race-category age. All horses become yearlings or one-year-olds on the January 1 following birth, for competitive purposes. Thus, a February 1
filly is 11 months old, while an August 1 filly is 5 months old on the following January 1. If each were bred as 2-year-olds (competition age), one would be 25 months old, the other only 19 months old for a March breeding.

2. Maturity level of the filly. Within a group of foals, all dropped within 2 weeks of one another, a great variation can be expected in their physical as well as physiological rate of development. The eye of the master is important in carefully evaluating each filly’s unique level of maturity.

3. Plane of nutrition on which the filly was grown. Level of nutrition during the first 24 months of a horse’s life, and especially during the first 12 months, is critical to its overall development. There could be some catch-up after this time, but not likely if the filly is further stressed by carrying or nursing a foal.

4. Economic investment in the filly. Economically, few can afford a sizeable investment with no return. With a $10,000 investment, the opportunity cost is $750 per year before any mare keep is involved. (For instance, $10,000 invested in a 7½ percent certificate of deposit program would yield $750 per year.) Obviously, this mare should be bred as soon as she is capable. Close attention to nutritional management will help.

What Time of Year to Breed?
This decision is complicated by the discrepancy between calendar age and competition age. For competition, all foals born in a given year will show, race and otherwise compete against their yearmates. This sounds only fair; however, appreciate the apparent advantage a January or February foal has over a July or August foal! Therefore, to try and remain competitive, breeders are all trying to drop the January-February foal. This presents some definite physiological problems and does contribute to the number of mares not settling on the first breedings.

The horse has not been domesticated long enough to naturally lose “seasonal breeding” characteristics. In the wild state, mares will usually conceive in late May, June and July so that foaling will occur in good weather on lush grass. Earlier breedings would put foals on the ground during February or March, before good grass and at a time when a late blizzard could strike.

The whole hormonal and physiological makeup of the mare is geared to the “natural” time program, not to our concerns stemming from the show ring or track. In January, February and March both the length between heat periods (up to 35 days) and length of estrus itself (1-9 days) is highly variable. Only during and after April does the cycle tend to smooth out to the expected 21 days and the heat period become a regular 5-7 days.

The American Quarter Horse Association recently analyzed its computer records and discovered the following rather surprising facts:

- Average foaling date of AQHA champions “made” as 2-year-olds — March 28.
- Average foaling date of 2-year-old ROM qualifiers — April 8.
- Average foaling date of All-American finalists of last 10 years — March 22.

This means the breeding dates for the above horses were in late April to early May. (A quick way to calculate expected foaling date is to take the breeding date, back up 1 month and add 5 days. For instance, May 3 breeding minus 1 month = April 3 plus 5 days = April 8).

When in the Reproductive Cycle to Breed?
“Success” in breeding depends upon having the stallion’s sperm arrive in the mare’s oviduct (upper end of the uterus) at the same time that her ovum or egg arrives at this site. Timing is critical because neither sperm nor ovum lives any great length of time “waiting for” the other to arrive. Estimates vary as to just how long the ovum will live if unfertilized, but 6-12 hours is probably a good approximation. Sperm are greatly decreased in fertilizing ability if held in the tract for more than 24 hours.

The mare, in May or June, typically exhibits 21- or 22-day cycles with 5-7 day heat periods. Another way of saying this is that from the beginning of one period when she will accept the stallion for 5-7 days to the beginning of the next 5-7 day period is 21 days.

The majority of mares ovulate from 24-48 hours before the end of heat and, therefore, should be bred at this time. However, since teasing will show only that the mare is in heat and not how long she is going to stay in (possibly 3, 4, 5, 6 or even 9 days), the dilemma of just when to breed still exists.

One good recommendation is to skip breeding on the first day that a mare teases “in”, and then breed on every other day thereafter until she no longer accepts the stallion. If stallion power is limited due to a large number of mares booked, the initial breeding could wait until the third day without missing any but the extremely short-cycle mares (1- or 2-day heats). To restate the breeding approach: whatever the day you feel it correct to start breeding, once the mare teases “in”, breed every other day after that initial breeding until the mare rejects the stallion.

Hygiene & Safety
During Breeding
The next problem confronting the breeding farm operation is to hygienically and safely breed the mare. All the best planning (e.g., age, time of year, when to breed within the cycle, nutritional program) is for naught if we allow a filthy, disease-prone breeding to take place or if we or the horses are seriously hurt during breeding.
The disease problem will more than likely result in failure to conceive or failure to carry the foal to term. An injury, if to the mare, may well result in no conception; if to the stallion, it may result in his inability or unwillingness to breed again; if to us, it may turn an otherwise happy, successful event into a disaster and make us wish we had never started.

Safety and hygiene are best assured by closely adhering to the following procedures:

1. Wrap the mare’s tail with a track bandage, plastic inseminating glove or the like. This eliminates the possibility of hair cutting the stallion’s penis and lessens the likelihood of introducing disease organisms into the mare’s reproductive tract.

2. Wash the vulva, anal area and buttocks of the mare with a mild soap and rinse well. Be sure to dry the area, as water itself effectively kills sperm.

3. Wash the penis, umbilical area and scrotal area of the stallion with mild soap and rinse well. Care should be taken to wash and rinse well the inside of the stallion’s sheath. Again, be sure to dry the area. Separate buckets are necessary for mare and stallion.

4. Restrain the mare in some manner. This may involve breeding hobbles to the hocks or rear pasterns, but should always involve at least a nose twitch. At no time should these restraints be used to force a breeding on a mare; they should be used only to prevent the kicking of some ill-mannered mares.

5. Muzzle the stallion if he is a biter. Another method of protecting the mare’s withers and neck is to use a burlap or leather wrap in this area.

6. Observe the breeding closely to be sure of correct intromission and ejaculation. Most stallions will “flag” (spasmodically jerk) their tail to indicate ejaculation.

7. Immediately following dismount, release the twitch and trot the mare away from the stallion. Some ill-tempered mares or stallions will kick or whirl, and kick immediately upon dismounting. When separated, continue moving the mare at a walk for approximately 20 minutes and do not allow her to stop and urinate or strain. This continual movement is necessary to assure proper retention of the entire ejaculate.

8. Wash and rinse the stallion as before; and before removing the tail-wrap from the mare, wash and rinse her. All buckets, sponges, towels, breeding wraps, etc., should be washed and rinsed with an antiseptic solution before being used on another mare or stallion.

In no other phase of the horse business is there more opportunity for personal injury than in breeding horses. Not only are we faced with individual differences of strange horses, but we are also dealing with them when the stallion is most aggressive and the mare most unpredictable. Handle them confidently, but never carelessly. The raw power of a spirited, 1200-pound stallion, particularly during breeding, is something to behold and is entirely beyond the scope of men to control without some mechanical device, such as a stud halter or bit. The mare is most likely to kick during this time of the year.

Post-Breeding Management

Following breeding, the mare should be allowed to exercise freely and be able to work in any manner she is accustomed to. About 10 days after breeding, (or day 16 or 17 of her estrous cycle), teasing should commence just as before and continue through her upcoming, potential heat period. Obviously, we do not want her to be teased “in”, and if she is pregnant, she will not. Teasing should continue daily through this potential heat period, i.e., for 6 to 7 days just as in the previous heat period.

If she shows no inclination to accept the stallion, she may be considered “in foal”, but she can be checked for pregnancy manually at 35-42 days if early diagnosis is desired. Great care should be taken with rectal palpation at this time since development of the early embryo can easily be disrupted by rough handling. If no palpation is desired, another teasing session through her next heat period would add to the confidence level.

From approximately day 45 to day 150, there are hormonal pregnancy tests that can be conducted. The best recommendation is to complete one of these at 75-90 days. Occasionally, a mare will resorb an embryo between day 45 and day 90. Testing by day 90 allows the mare owner to try breeding again during this current season if he so wishes. Many times, late-return mares are not noticed because teasing has logically ceased, they are put into the back pasture, and you are relaxing because they palpated safe-in-foal at 40 days.
### BREEDING AND TEASING RECORD

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</table>

**Name**

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**Figure 1. Sample Teasing and Breeding Record.**

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**Breeding Herd Records & Contracts**

Complete and accurate records are very important to a stallion-station or multi-mare owner. Perhaps the one-mare horseman or the stallion owner who breeds only one mare per year can get by with napkins, matchbook covers or scraps of paper on which assorted miscellanea has been scratched. But anyone with two or more horses needs good records and a definite, permanent place to store them. No one can or should be expected to remember all of the dates and figures involved with a group of breeding horses, especially 5 or 6 months later when a question or problem may arise.

Among the basic records to be kept are: teasing and breeding records for each mare (Figure 1), stallion breeding records showing mares served and dates of service, and a daily stall sheet for each mare indicating what feeding programs, farrier care and veterinary expenses were involved. Planning the coming weeks' teasing-bredg schedule, filling out breed association reports, and accurately and completely passing on mare-care expenses to the mare owner can only be done by reviewing clear, complete records.

Discipline yourself to keep good records!

A breeding contract is also a must between mare and stallion owners. Like good fences, they make good neighbors! With a contract read, understood and signed by both parties, there should be no misunderstanding after-the-fact. Your attorney or simply good common sense will dictate what needs to be included in the contract.

Figure 2 is an example of a good working contract. The horseman should feel free to alter it as necessary to fit his desires or needs. Two "original" copies should be created for each horse bred — one for the stallion owner and one for the mare owner.
BREEDING CONTRACT

It is hereby agreed to breed the MARE ___________________________ Reg. No. ____________
(Sire ________ Reg. No. ________; Dam ___________________________ Reg. No. ________)
to the STALLION ____________________________________________ Reg. No. ____________.
(Sire ________ Reg. No. ________; Dam ___________________________ Reg. No. ________).  
The fee for such service shall be $ __________, payable at ___________ at book
___________ at time of service. Booking fee received $ __________.

Return privileges thru _________________ 19__.

Board for mare shall be at rate of $ __________ per day; $ __________ with foal.

The stallion owner or agent may have mare checked by veterinarian for normal breeding
condition, the cost of which mare owner shall pay. Stallion owner or agent shall assume no
liability for mare that will not breed, cannot conceive, or for accident, sickness or death of
the mare or colt, but will exercise every reasonable effort to settle mare and good judgment
in care and supervision of mare. Mare owner shall not be responsible for injury or accident
to stallion.

A live foal is guaranteed—meaning a foal that can stand up alone and nurse. Should the
foal die at birth, with certification of same provided to stallion owner, the stallion owner
will rehire the mare the following year without further charge for stallion service. Mare
owner will be responsible for board and vet fees only.

Should the mare prove barren or should the foal die at birth, the mare owner will send
notice of same to the stallion owner, signed by a licensed veterinarian, within five days of
such barren determination or death.

The mare owner agrees that upon arrival, the mare will be halter broken, have the hind
shoes removed and be accompanied by a health certificate signed by a veterinarian. The stal-
lion owner will require a culture after arrival of the mare.

I have read the foregoing and agree to conditions.

MARE OWNER                                           STALLION OWNER

Name ___________________________                         Name ___________________________
Address _______________________________________________ Address __________________________________
City ______________________  State ________                City ______________________  State ________
Phone __________ Date ______________                       Phone __________  Date ______________
Signature ___________________________                     Signature ___________________________
Nutritional Management

The feeding program for a breeding operation should include a regime to satisfy the requirements of four categories of horses. Each has a different energy demand and should be handled individually to assure good condition upon return to the mare owner as well as enhance the chances of an early settling.

- **Barren Mares.** A barren mare is one, other than a maiden mare, which for some reason did not foal the previous season. The primary nutritional problem with these horses is that they will probably be too fat.

- **Maiden Mares.** Maiden mares (ones being bred for the first time) are usually young and growing, and therefore demand more nutrients than the barren mares.

- **Foaling and Lactating Mares.** Upon arrival at the breeding farm, the foaling mare is probably in the last month of pregnancy, and certainly her energy demands will be above either barren or maiden mares. If the mare has foaled prior to arrival, she will be lactating and approaching the point where her nutrient demands are the highest of any category of horse.

- **Stallion.** If in heavy use, he will have an energy demand over and above his maintenance needs. If young, the manager must meet the stallion’s nutrient requirements for growth, use and maintenance.

The 14% protein ration in Table 1, containing approximately 70 percent digestible nutrients, will work nicely as a base ration for all four categories of horses. This contains enough protein to keep libido and sperm production up for the stallion, to insure growth for the young horse, and to supply the needs of the developing foal or early lactating mare.

The energy needs of the various categories can be met by feeding more or fewer pounds of the grain; legume-grass hay should be fed with this grain mixture (Table 2).

### Table 1. Corn-Oat 14% Protein Grain Mixture for Breeding Horses.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Corn base</th>
<th>Oat base</th>
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<tbody>
<tr>
<td>Corn</td>
<td>53</td>
<td>28</td>
</tr>
<tr>
<td>Oats</td>
<td>26</td>
<td>52</td>
</tr>
<tr>
<td>Soybean meal</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Molasses</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Limestone*</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Dical phosphate</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Trace mineralized salt</td>
<td>1</td>
<td>1</td>
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<tr>
<td><strong>percent</strong></td>
<td><strong>100</strong></td>
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</tbody>
</table>

*Delete the limestone if the hay portion of the daily ration is predominately alfalfa or clover rather than grass.

### Table 2. Suggested Daily Feeding Program for Various Breeding Horses.

<table>
<thead>
<tr>
<th>Category</th>
<th>14% protein</th>
<th>Grass-legume hay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barren mare</td>
<td>3-4 lbs.</td>
<td>1 lbs./cwt.</td>
</tr>
<tr>
<td>Maiden mare</td>
<td>6 lbs.</td>
<td>1.25 lbs./cwt.</td>
</tr>
<tr>
<td>Foaling mare</td>
<td>7 lbs.</td>
<td>1.50 lbs./cwt.</td>
</tr>
<tr>
<td>Lactating mare</td>
<td>10-12 lbs.</td>
<td>1.50-2.00 lbs./cwt.</td>
</tr>
<tr>
<td>Stallion</td>
<td>6 lbs.</td>
<td>1.25-1.50 lbs./cwt.</td>
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</tbody>
</table>

*Composition of grain mixture shown in Table 1.

### Related Publications

Single copies of the following Purdue Extension publications are available free to Indiana residents from their County Extension Offices or from the Agricultural Publication Office, AGAD Building, Purdue University, West Lafayette, Indiana 47907.

- “Fencing for Horses in Indiana” (AS-418)
- “The Nutrition and Feeding of Horses” (AS-421)
- “Horseman’s Guide To Trail Riding” (AS-423)
- “Managing The Breeding Stallion” (AS-427)
A Purdue University Publication