The bond between a foal and its mother is extremely strong and in the early weeks after the foal’s birth they are inseparable. The mare nurtures and protects her baby who rarely leaves her side, the two moving together like dancers in a ballet, the foal on his long legs floating beside her as she runs, turns and stops. Gradually the foal becomes more adventurous, causing his mother many anxious moments as he tries out his shaky legs and insists on running away from her. She becomes more settled about his adventures as he becomes more independent but his mother remains the constant in his life, the focus of his security. However, before he knows it, and certainly before he is ready for it, the bond between them is broken when the foal is weaned and forced to make his own way in the world.

Words and photos: MaryAnne Leighton
Weaning is a necessary part of the process of breeding horses and it is without doubt the most stressful time in a foal’s life. However, with proper planning the stress can be reduced and the potential for illness or injury removed. There are three main accepted methods of weaning foals. Each has advantages and disadvantages and horse owners and stud masters use the one that best suits their management style and the facilities available to them. The most widely-used method is to take the mare and foal into a stable and after a determined time leave the foal in the stable and remove the mare from sight and sound of her baby. A second method is to leave a group of mares and foals in their usual paddock and every few days remove one mare and take her out of sight and sound of the group left behind. Her foal remains secure in a familiar environment with his friends and notices her departure much less than if he was isolated in a stable. The third method is to put the mare and foal in adjacent paddocks that have a strong common fence. They can see and touch each other but the foal is unable to suck from his mother. This method has the significant advantage that stress to mare and foal is reduced and within ten days to two weeks the foal has lost his attachment to his mother who can be removed without any drama. When weaning in this manner it is better that the mare is not able to move out of the foal’s sight, although she needs enough room to move around to ease the discomfort of a tight udder. If you have a choice of different-sized paddocks, put the foal in the bigger paddock so he has room to run and play and even if he takes himself out of sight of his mother he can quickly find her.

THE EFFECTS OF STRESS AT WEANING

According to a doctoral study by Cynthia McCall, PhD, at Texas A&M University in the USA in the 1980s, foals that have contact with their dams over a fence during the first week of weaning show greatly reduced signed of stress – vocalisation, fretfulness and adrenal cortisol levels in the bloodstream – and suffer fewer injuries compared with foals separated abruptly from their dams. Karyn Malinowski, PhD, at Rutgers University in a 1990 study of twenty standardbred foals took blood from both mares and foals at four, eight, sixteen, 24, 32, 40 and 48 hours after abruptly weaning foals singly and in pairs. The foals’ cortisol levels were shown to be elevated for an average of forty hours and for an average of twenty-four hours in the mares. Blood was also examined for lymphocyte proliferation response – an indicator of how well the immune system is reacting to challenges such as pathogens (agents causing disease) at four and twenty-eight hours after weaning. Foals weaned in pairs showed a significantly lower lymphocyte proliferation response compared with foals in a control group. Malinowski explained, ‘The presence of another foal appears to be intimidating for many new weanlings. One is usually dominant over the other and the possibility of aggressive behaviour can be stressful. We found that paired weanlings vocalised less and didn’t do as much running around but while that looks less stressful we suspect the single foals suffered less immunosuppression because their repeated vocalisations and higher level of activity and aggressiveness helped them adapt and reduce stress.’ Foals weaned in pairs often become as attached to each other as they were to their mothers and separating them later can be as stressful as weaning them again.

From a nutritional perspective, weaning occurs at a period of peak growth in the foal. A foal’s weight increases by more than one fifth between the ages of six to twelve months and its height increases by about ten percent. Most of this weight gain is in bone and muscle development and poor feeding during this critical period can affect bone quality for life. Foals should be creep fed from about two months old if they are to receive adequate nutrition for growth as the mare’s milk is at its peak for only the first six weeks, then declines in quality and quantity.
Avoid a change of diet after weaning as maintaining the same diet can do much to reduce stress caused by the introduction of new feed. Studies have shown and common sense will tell you that foals that suffer undue stress when being weaned can lose their appetite and lose weight. Weaning can result in a drop in the feed consumed at the time when nutrient supply is critical. Growth rates can fall by sixty percent in the first week after weaning, taking another two weeks to regain previous levels. When these foals recover and go back on their feed they often undergo a sudden growth spurt and this dip and surge in the growth curve of a weanling can result in developmental orthopaedic disease, DOD, a condition in which bones and joints develop abnormally causing contracted tendons, epiphysitis or even bone cysts in leg joints. Foals that undergo a minimum amount of stress during weaning continue to eat, growing at an even rate and making them far less predisposed to DOD.

When stressed, horses experience increased levels of cortisol in their bloodstream. Cortisol assists the flight or fight response that horses need in times of crisis, but when the cortisol level remains elevated for long periods of time (as it often does during weaning) it can compromise a foal’s normal immune system and leave him vulnerable to diseases such as strangles, influenza, EHV (equine herpes virus) and salmonella infection. Gastric ulcers from stress can further delay growth and development, and stress can also delay reproductive function. A stressed and panicked foal will run the fence overloading immature joints, or he will run into the fence or other foals, injuring himself or them. Stressed foals often will not sleep. Foals generally need more sleep than adult horses and in order to sleep soundly they must lie down, stretched out on their side. Research suggests that the release of hormones, especially growth hormone, is related to the sleep cycle so it is reasonable to assume that stress during weaning could slow down or stunt a foal’s growth.

**WHEN TO WEAN**

Opinions vary about the best time to wean foals but generally four to six months is ideal, depending on the health and emotional maturity of the foal. At four months the mare is producing less milk that contains fewer nutrients and by this age the foal should receive most of his nutritional needs from solid food, nursing from his mother less frequently and often just for comfort and security. The physical condition of the foal at time of weaning is critical; the foal should be healthy, full of energy and eating on his own. He should be emotionally independent and the older he is when he is weaned the more independent and secure he will be as an adult. A foal weaned very young tends to be more traumatised and more dependent on its owner or handler. If possible he should be socialised with other horses before weaning so he knows how to behave in a herd situation. Social behaviour is established early in foals raised in large groups but unsocial behaviour can be a potential problem in only foals.

Before weaning the foal should be familiar with the stable or paddock in which he will be separated from his mother. Fences or stable walls and doors should be secure with no protruding nails or bolts and should be high enough to discourage the foal from trying to jump out. Barbed wire is an absolute no-no in a weanling paddock and plain wire fences should be strained tight. All foals should be taught to lead and tie up, have had their feet handled and trimmed and been vaccinated and wormed some time before they are weaned. Plan your weaning time and ensure you are home for the first couple of days. Horses are creatures of habit and they are most content when their management has a predictable pattern, therefore it is best to feed weanlings the same amount at the same time each day and ensure they receive regular exercise which is essential for their physical and mental well-being. Before weaning reduce or eliminate the mare’s grain ration to avoid founder and assist her milk to dry up. It will take several days for the painful swelling in her udder to go down but resist the temptation to milk her out as this pressure is needed as a trigger to the brain for lactation to cease.

**HOW WE WEAN**

Kath Peterson of Coronation Park Stud in the Hunter Valley weans twenty to twenty-five foals each year. How she weans each one depends on its personality and the temperament of the mare. However, she stresses that all foals are handled and taught to lead before weaning, all have been creep-fed from two-and-a-half to three months old and all are wormed and receive their tetanus toxoid shots at least three weeks before they are weaned. She said, ‘It is very important to be observant and to know your babies. You know if a foal is settled and doesn’t care if its mother is there or not and you know the nervous mares that don’t like to have their foals taken away. You know which foals are mates and which ones like to eat together. I won’t wean if a foal has a cold and if a foal isn’t looking good I will pull blood to see if it has some sort of viral infection.’ Kath always acclimatises the foal to the stable in which he will be weaned, stabilising the mare and foal for two days before moving the mare to an adjacent stable. Her stables have mesh panels between the stalls so mother and baby can see and touch each other, and their feed bins are back-to-back.
on the same wall so they can eat together.

Three days after they are separated from their foals the mares are removed. She said, ‘My foals are never locked up all day. Once the mares are gone the foals are taken in and out of their stables every day and walked 140 metres to and from their day yards.’ Kath likes to wean by the moon. ‘I use the Farmer’s Almanac. That tells you the best time each month to wean and I try to stick to it.’ Weaning in the right phase of the moon’s cycle is like planting and harvesting crops by the moon. ‘Weaning when the moon is right means there is no fluid in the brains of the babies and they think and react better,’ she said.

Karen Howard of Bar’que QH Stud at Upper Manilla in NSW has weaned foals the same way for the past thirty years. Karen and Ray breed between seven and seventeen foals each year and they wean in an old shearing shed that has been converted to stables. ‘We wean each foal by itself. We take the mare and foal into a stall, catch the foal, put a halter and lead on it and take the mare out. We have a radio in the shed and we turn it on really loud so mares and foals can’t hear each other. The foals winge for a couple of days but, apart from feeding and watering them, we don’t touch them for four to five days. By that time they are not frightened and they’re looking to you for security.’ She added, ‘At weaning time the mares know the routine and most are pleased to get rid of their foals – they will whinny once when they walk out the door, once again when they’re walking away then they can’t wait to get to a new paddock of good feed.’

Living on seven acres it is not possible for me to move my mares out of sight and sound of their foals. However, as I breed only a one or two of foals each year I have found the least stressful way of weaning – for the mares, the foals and especially for me - is to leave the foals in the paddock they grew up in and move the mares to a small adjacent paddock. The foals have the security of being able to see, touch and talk to their mothers but they are unable to drink from them through the fence. These paddocks are near the house so I can check regularly to ensure all is well. I leave mares and foals next to each other for ten days, by which time the foals have lost all interest in trying to suck, the mares’ milk has dried up and no-one cares when I move the mares to a fresh paddock. My foals are handled from birth, going in and out of a double crush when the mares are treated after foaling and when they are follicle tested, inseminated and preg tested. The crush has high, solid walls so the foals cannot see or jump out and there is enough room in there for me to move around the foal and handle it without risk of injury. I can close gates in front of the crush to form a secure, rubber-floored pen the width of the double crush that is perfect for later lessons in picking up feet and tying up and all this happens with the mare remaining safe in her side of the crush, able to see, talk to and touch her baby.

Weaning is understandably a challenging and frightening time in a young foal’s life - the foal’s whole understanding of his world is removed when his emotional security blanket is ripped from him. Foals always need time to adjust to the state of being without their mothers and it is vitally important, for their future growth and to reduce the risk of injury, to minimise the stress associated with this traumatic time. As Kath Peterson said, ‘Please use common sense when you wean.’