In having grazing lands (mokchang) in each place, it is necessary to (select) land that is suitable for horses and establish them where the terrain is fit. We must have broad fields for this.

(note: In making grazing fields, you must select land that is suitable for horses, places where the terrain is suitable and the water and hay is plentiful. Those grazing fields which at the present time are not suitable should be abolished and given to the people. And as for those places which are designated (as grazing fields), we must expand their dimensions and make them extremely broad to increase their productivity. We must not as we do at the present time (i.e., moving from one place to another) which does nothing but harm to the people and is of no utility (in raising horses).)

Indented: I note that in our country we establish grazing lands always on islands off the coast and we have more than 120 of them around the country. (note: Within the country (on the mainland) in the 8 provinces, only Kangwŏn province does not have grazing lands. There are 30 of them in Kyŏnggi province, of which at the present time there are 16 with horses on them. Ch'ungch'ŏng province has 10 places with only 4 with horses on them. Chŏlla province has 42 places with only 14 with horses on them. Kyŏngsang province has 21 places, with only 4 with horses on them. Hamgyŏng province has 6 places, with only 5 with horses on them. Hwanghae has 10, with only 7 with horses on them. P'yŏng'an has 4, all of which were abolished after the war. If you add them all up, then there are 123 grazing areas (mokchang) and only 50 have horses on them. I have not included the ones on Cheju and Salgoji.

These grazing areas are scattered around in small pieces (fragments). Even though the most suitable land for horses is in the northwest, still by far the most of them are located in the south, and by contrast there are
only a few in the northwest. This distribution is not fully in accordance with what is appropriate.

In the past during the T'ang dynasty, the T'ang established 8 pang (grazing ranches) in Ki, Pin, Kyong, Kyung and other areas; in area they were 8,000 (li) wide. The Ta-fu hsiao-ching, Chang Wan-sui was in command of the grazing (of horses). From the cheng-kuan era (T'ai-taung) to the Lin-te era; from 627-50 to 664-666, a period of 40 years, there were more than 706,000 horses. At that time, it cost one bolt of silk to buy a horse, and the fact that during T'ang times China had the most horses (it ever had), is something that has been praised in olden times and the present alike. Even though this (air) country may not be able to do what China did, we ought still to select the best places for horses and expand the grazing area to over a 100 li or several hundred li, and combine several (smaller) grazing ranches to make ones that are large enough, and with the ones we do away with we should give them to the people. No single province should have more than one or two grazing ranches. (note: Or at the most, not more than 3 or 4)(end note). We should also put the grazing ranches (mokchang) in the northwest in good repair and also have them accord with the system. If we do it like this, then we will not have the bad situation where the grazing areas are too fragmented and difficult to manage, nor the problem of doing harm to the people because of ranches scattered everywhere. Horse administration will be well carried out and many horses will be produced (foaled), and with regard to horses needed for the military purposes of the state, there will be no danger of a shortage. (note: At the present time those people who think grazing ranches have to be established on islands are people who want to cut down on the costs of building corrals ( ). But islands constitute land that can support the people's livelihood, yet they are all occupied as grazing areas
p.435, 22:19b) while the abandoned and empty fields in the mountains do not have one place that is used for grazing horses. This is something that I cannot understand. The area to the west of Changnyeong has many mountains and few people; it cannot be cultivated and has been abandoned as empty land; there are many places there suitable for grazing. And in such places as Kanggye, Isan and Yongbyon, there definitely is land suitable for grazing, but because it is close to the frontier (border), at the present time no mention is made (of its use). I once saw Ch'ŏn'gwŏn and Hoeyang, and I thought that these places were also suitable for establishing grazing land. If you select and establish a grazing area, not only would it convert the weak (animals) into strong horses, but it would also convert abandoned land into something useful, and it would be very good. Some people think that it is difficult to build a corral fence on 4 sides, and they are also worried about tigers doing harm. But building a corral is a one-time effort; how could you abolish something that would be of profit for 10,000 generations because of this? (subnote: Also if you pay good wages to people to do the work, they should not resent it). As for the harm done by tigers, the country's law code provides for provincial army commanders and magistrates to take troops to capture and kill them. We can also train the horse keepers in the use of fowling weapons (guns) to go along and capture (tigers), and let them keep the skins for their own profit. If we do this, they will compete with one another to be the first to capture and kill them, and there will be no reason to fear tigers.) (end note)

Indented section continues: I note that good administration depends on obtaining the right men. In T'ang times they also obtained the right men and entrusted them with responsibility and were thus able to produce large numbers of horses. In selecting officials to take charge of the
animals, you must appoint men to long terms of office, and only then can you hold them responsible for horse administration. If you do as is presently done and change the men in the morning and evening and have men who in name only are in charge of horses but who in fact know nothing about horse administration, then there is no hope that anything would be done right.

We will grant 1 kyŏng of land and give it to the horse keepers from land nearby the grazing fields and exempt them from basic taxes worth 2 kok of land. (note: That is to say, we will exempt them by two grades from the basic taxes collected on (cultivated) land. It will make no difference whether they are commoners or base persons in status, but will grant them land and tax exemptions of 2 kok of land near the grazing fields. We will also exempt them from labor service requirements on ordinary cultivators (kyŏngbu, such as wood, hay, and ice payments and labor. These exemptions will be determined on the basis of the number of horses (they have charge of).)

Indented note: Some might say that/horse keepers only should have charge of the horses on grazing fields, and should have no other work, so that it should not be necessary also to grant them tax exemptions. To this I would reply that horses on grazing fields definitely do not require special feeding and care, but we should designate a single man from every group to serve on rotation to keep watch over them. And also in the fall and winter to stack up hay, make fences and herd the horses into the corrals when the snow is deep to avoid the snow, and to give them fodder. Only then can you ensure that they will be gathered and at ease. Even though you say that they are only put in charge of the grazing field horses, it is not that they have nothing to do. Also, at the time for inspecting the horses, they would be busy with a lot of work; and this work would not be light and easy. Since we are not giving them any po (support personnel), we have no choice but to grant them tax exemptions.
I hear that at the present time the horse keepers in Ch'ŏngju suffer difficulties that are incomprehensible. In recent years, the secret censor Yi Kyŏng-ok(李慶德) memorialized the throne asking that they be given special po (support personnel, and yet their difficulties would still be difficult to alleviate, he said. (Pyongyang, 4 p.395; Yi was a secret censor during the reign of Hyŏnjong, 1659-74, who memorialized about the problems in the horse grazing fields in Cheju). This was ordered in the previous reign, but some officials because of their own private actions created evils and the regulations were not uniform, and so it created the present situation which the people are in. We ought uniformly to establish a method and completely abolish these evils. If we adopt this regulations for horse keepers, then everything should be the same in every place; you cannot have different (regulations) for different places.)(end note)

For every 100 female horses (mares, chama, nammable ), there should be 15 studs (馬), which will make one group. (same as for oxen). And for every group there should be one horseman. (note: From among the horse keepers, you should select one good and trustworthy man and put him in charge. The same goes for his assistants).)(end note).

There should be 2 assistants and 7 horse keepers.

Indented note: I note that in the law code it stipulates that there should be 15 studs for every 100 mares, with one man in charge, 2 assistants, and 4 horsemen. At the present time I am relying on this system, but since the work is difficult, I am adding on an additional 3 men as horsekeepers. In China, for every 10 horses they designate one man in charge, and for every 50 horses a chief horse keeper. I don't know if this system is better or not. We ought to give it more study.)(end note)

Indented section: According to the Chou-li, the chiao-jen(校人) was in charge of the administration of the king's horses. It distinguished
p.435, 22:20b) between six different types of horses: 

- the chongma (鍾馬), the military horse (戎馬), the horse used at sacrificial rites (chema 朝馬), the horse used in hunting (chönma 騎馬), the horse used for work (驥馬). Generally speaking you pick the best horses and raise them for riding.

With regard to riding horses, for every 4 corrals, you appoint 1 sa (散:shih); etc. (more regulations described with a list of officials)

p.436, 22:21a) If you manage horses and other things in accordance with what is right, you select the best horses as seed horses and raise them. In fact, raising horses in the capital and provinces is in general the prime task.

---. For each horse ranch you should select a horse doctor and give him 2 kyŏng of land. (note: In addition to what the horse keepers (mokcha) receive, you set up a separate 2 kyŏng of land for the horse doctor, and select a man who knows about the diseases of horses and give it to him. Also in accordance with regulations, exempt him from the pŏp'o (support cloth tax), and also exempt him from miscellaneous labor service (chabyŏk). (end note)

---. Abolish the present Horse Supervisors (Kammokkwan) who are located in each place, and have the district magistrate take over this supervision responsibility. (note: The magistrate will take over inspection and an assistant will transmit and take responsibility.) (end note)

Indented section: That is to say, the reason why the horse keepers (mokcha) cannot endure their burdens at the present time is because we have establish separate supervisory officials (kammok). However, if you don't have a separate official, then the horse brazing administration will become lax, and if you do have an official, then the former burdens on the horse keepers will become greater. It only depends on getting the right men and that is all. It is only that in discussing this system,
p.436, 22:21b) If the number of horses in every ranch comes to 4 or 5,000 animals or more, then this would be too much for the magistrate to handle concurrently. Then you ought to combine one or two ranches that are near to one another and appoint an official to oversee them. If the number of horses is no more than several thousand, then it would only increase the burdens on the people and eat into public funds, and would in fact be of no benefit to a good horse administration. The best thing to do is to have the district magistrate take over responsibility for it.

(note: If in faroff places you combine several ranches and appoint a mokkwan (ranch official), then it would be even less advantageous and give rise to many evils.

Indented note: In general, the system of horse supervisory (officials) began in the T'ang dynasty. The T'ang established separate officials. In the Sung they had the district magistrate take charge of it concurrently.)

---. In the winter of every year, check and inspect the horses and draw up a ledger and send it up to the bureau in charge. (note: Include the number of foals born during the year, the ages and colors of the horses. All the horses should be graded superior, middle, and inferior, the same as with oxen.)(end note)

Indented section: It should be determined that for every group (of 100 horses), there should be 30 foals born (every year) (note: There should not be less than 70-80 foals born every year, but I am purposely reducing the figure.)(end note) The official should select those horses that are suitable for him. As for the rest, no matter how numerous they area, all of them should be given away. If there should be a case where (the horse keepers?) are not diligent in raising the horses and do not raise enough of them, they should be indicted for criminal action (and the punishment) should be in accordance with the number of horses (they are short). (note: In the case of oxen, 50 young should be born a yr
For every 10 young good horses or more, a reward should be given of one horse worthy of being registered (to the horse keeper). (note: If a particularly good horse is produced, then you can determine an additional reward.)

If a horse is lost or dies from neglect, then compensation in accordance with the number of horses lost from the horsekeeper. (note: For every horse or ox lost, he should be given 40 strokes of the bamboo; for every additional horse, add on one degree of punishment, to stop at 100 strokes. If a horse dies, the horsekeeper gets to keep the skin and hair and tail, in the case of an ox, hide, hooves and horns, and then punish him by collecting compensation. The compensation must be in a substitute horse or ox and not in cloth.)

No penalty will be assessed in the case of horse that dies after the age of 20. (note: 15 year of age in the case of an ox. Just give the horsekeeper the skin, hair, tail, hooves, and horns, same as below.)

There will be no penalty for any animals killed by tigers or infectious disease. (note: Carry this out only after an investigation of the facts.)

(note: Even though one group means 100 horses, since the foals do not leave their mothers, in fact the number of horses in a group would be greater than a 100.)

Indented section: I note that in the Ta-Ming-IU (great Ming law code) it says that 100 mares makes a group and that every year they should foal 100 animals. If only 80 foals are born the chief (keeper) of the group and his assistant will be given 50 strokes. If only 70 foals are born, 60 strokes. If a horse dies or is lost, the keepers will be penalized in accordance with the number (lost or who die). Even though the law was like this, nevertheless people in the Chinese court felt that even if you sold off three foals it would not be sufficient to compensate (for the loss of one horse).

According to this country's law code, one group of horses is supposed to foal 85 animals or more, and if so, the horsekeeper is rewarded by
a promotion of one grade. If after three years time the number of foals does not come up to 30 animals, the Kamsugwan (supervisory official) is dismissed. If any horses are lost, he is indicted for criminal action and forced to make compensation (penalized) in accordance with the number lost. If any horses die, he must make compensation by some number less (than the number lost). But at the present time the horsekeepers think this is a most oppressive burden and in addition, the number of horses has gradually been declining. People in China have been requesting some adjustment in the system to find an average number (of horses for which they should be responsible), and that credit be given for overproduction of horses in one year to offset shortages in another year, and if there is a shortage this year, it should be compensated for (by overproduction of horses) next year. If a seed horse (chongma) dies, then a foal should be used to count for it (make up for it). This opinion is realy correct. If we set the quota of horses at a light figure and allow extra horses produced to be used to compensate for shortages and deaths, then the officials will have a fixed number of horses and there will be no difficulty in sup rvising things, and below there will be no problems from deceit and hiding (of figures). Furthermore, everyone will be diligent by himself and the labor of the horsekeepers also will not be excessively burdensome. How is this not a good plan and method?

Even though the quota might seem to be too light (small), if you calculate things on the bases of long period of years, then 1 kun (district) should produce 30 horses a year, and in 10 years, you should get 300 horses, and during this period there will also be no less than 500-600 foals born, and so many horses will be produced that we will have trouble using them all.

Buy up a lot of mares and studs donkeys and mules (tangnawi, nosae) and let them roam around in the ranches and give birth to foals.
p.437, 22:23a) (note: Donkeys and mules are extremely rare in our country. For commercial transport we always use horse power and for this reason we are very short in horses for military use. If we were to buy up several thousand mule mares and studs from Liao-tung and other areas, establish an agency of the stud (Sabok) and keep them on Cheju islands and other ranches and raise them together with horses, then it would profit us for a 100 generations.) (end note)

--. If tigers should invade the ranches, the magistrates and Ch'oltosa (military commanders) should capture them.)(note: Severe punishment should be meted out to any horsekeepers who fail to report this to the officials. And if 5 or more horses of oxen are killed because of failure to go immediately to capture the tigers, then the magistrate and provincial army commander will be punished according to law. If the gamekeeper or ordinary people should happen to capture the tiger in advance, they should be given a good reward, and we should not take the skin away from them as is done at present.) (end note)

--. Soldiers used for building ranches (corrals), chasing horses and reining in (training?) horses, should all be recruited from soldiers. (note: Repattting corrals is a big task, therefore you should recruit soldiers separate for this task. If it is just a small repair job, then have the horsekeeper make the repairs. Horse-chasing soldiers (cowboys?) are people who round up the horses at inspection time; you can't just leave the horsekeepers to take responsibility for this, so you have to recruit extra people for the job. As for reigning soldiers (soldiers who hold the reigns and drive the horses), these are people who accompany horses sent to the capital. According to the Taedong samok (regulations for the taedong) at the present time, funds are taken from officials to be used as compensation for hiring people to do this. Soldiers to do this should be recruited from district towns along the route and be sent along.) (end note)
p.437, 22:23b) —. Horses from the ranches should be sent up to the capital once a year. (note: or once every other year; consider the circumstances in deciding what ought to be done as standard procedure.) (end note) Set a fixed quota to be sent up. (note: Consider the circumstances and what is appropriate in determining the quota, and it should be a fixed figure.) (end note) And abolish the present practice of varying the number of horses to be presented to the throne as tribute. (note: At the present time horses are sent as royal tribute (chinsang) from Cheju every winter, also as tribute to the court, and on the birthday of the king. In addition horses are presented when an official changes posts, yearly tribute horses etc, very many categories which at the most require a hundred horses, and at the least several dozen, or as few as 3-4. The evils from this frequent levying of horses are too great to discuss. In fact it is of no advantage to the government, and only adds to the burdens of the people. How is this not the worst of evil systems? We ought to change this evil and fix a standard yearly figure of horses to be sent (as tribute) to the capital. At the present time I don't know what the situation is like at the various horse ranches around the country, but if we combine these small ranches and combine them into one large ranch, then in general, it ought to be like this (as I have laid out above?) (end note) —. At the present time the horses of the Saboksi(�) are distributed among the various districts, which is an evil situation. (note: At the present time, every year the horses of the Saboksi are picked out and sent to six district towns far and near with a time set for them to get fattened up and sent back. If they do not get fat or die, then the magistrate is punished for criminal action and the magistrate in turn exacts compensation from the people. Not only do the people and costs suffer injury from having to go back and forth to get horses and receive them, but the officials and clerks of the bureau also take advantage of this to force payments out of them, so much that one can describe it all.
p.437, 22:23b) We ought to abolish this regulation.(end note)

22:24a) Indented section: Some might say that if the Saboksi does not send its horses out to the districts (to get fattened up), it will have difficulty in maintaining (its horses). How about this? To this I would reply that under our country's system, the horses of the Saboksi ought to have a fixed quota and on the basis of this we should determine how much fodder/is needed to take care of them. It only requires that the officials keep watch over their responsibilities and be frugal, and that is all. How then would there be any evils and insufficiencies and any fear that the agency would not be able to maintain (its horses)? If at the present time you should want to increase the number of horses, then at the present time even if you were to send them out to the districts, you would also have to reduce the costs of providing fodder and beams. And if you make these reductions, how are you going to make up the costs from transferring materials? It is extremely stupid to think that you can increase the number of horses of the Saboksi and at the same time put an end to penalties on the magistrates, losses along the routes, corruption from official squeeze.