



**TESTING LAB**

T E S T   Y O U R   P R O D U C T



- Testing Lab is specified for user oriented product testing and development for sports and wellness products
- We test
  - Sports products
  - Wellness products
  - Healthy foods
  - Technology products
  - Sports equipment
  - Sportswear
  - Sports nutrition
  - Services and applications
  - Products that are already on the market
  - Products in their development phase



# Green Stallion

## Objective user testing

- Content of user testing
- Tested products
- Test group
- Results
- Tested brand



# Content of user testing

- Objective user experience
- Users point out product functionality, effectivity and quality
- 25 testers
- Product was used by 67 horses
- Test was performed in two periods:
  - Period 1: 1-1,5 months on december and on january in Finland. This means winter conditions and temperature was above and below zero degrees during the test period
  - Period 2: 1-1,5 months on june and july in Finland. This means warm and sunny conditions and temperature was 20-30 degrees during the test period





# Tested products

## ■ Green Stallion



# Instructions how to use the products

## ■ Green Stallion

- Tough training or warm conditions 3-4 spoons (1 spoon = 15 ml) and easy training or cold conditions 1-2 spoons. Spoons could for example be mixed with 10 litres of water.
- It was recommended to use the product daily. Product could be used 1-3 times a day and the amount of spoons could be chosen based on training and conditions.

## Test group

- 25 testers
- Totally product was used by 67 horses:
  - Race horses (47), show jumping and event horses (17) and other horse use (3)

## Blood glucose measurement

- The idea was to do 10 measurements on each animal.
- Wellion Vet Gluco Calea blood glucose meter was used.
- Blood glucose level was measured before using the product and 30 minutes after using the product because after that time blood glucose level should be at the highest level
  - In addition, testers wrote down possible other given nutrition and done sport between the measurements



## Results – Green Stallion



## Summary of the test results

- 88 % of the testers would recommend Green Stallion to a friend
- 68 % of the testers were pleased to an increased performance
- 84 % of the testers were pleased to recovery
- 91 % of the horses increased desire of drinking
- 93 % of the horses product was tasty
- Horses were more attentive
- Fur became more shining



# Green Stallion – Objective user testing





## The effects of using the product on different weather conditions

- The results were similar on winter and summer test periods. Anyhow, on sunny and warm summer weather testers noticed the effects of using the product a bit more clear/efficient way then during the test period on the winter conditions. This was shown especially on stamina.
- During the both test periods, using the product had similarly positive effect on drinking. Animals drink more compared to drinking only water.

## Yleinen kommentti tuotteen käytöstä

- Tester comment:
  - "We have been very pleased to Green Stallion because it has increased the derise of drinking and during the test period the horse has inproved performance, stamina and recovery. During the summer test period, the appearance of a fur of the horse has become more shining and the horse has been more sharp.We will continue using the product after the test period because the product is tasty and it's effects are obvious."

# Performance

- During the test period, horses were more energetic and that was shown also on performance. Increased energy did not cause anything negative on horses. Horses were relaxed and event horses concentrated well on the given tasks. In case of one horse, typical scaryness did not increase, instead it decreased.
- Horses had better performance on trainings than usually and performance stayed on a good level all the way to an end of tougher training sessions.
- The performance of the horses stayed good whole hot summer season
- The performance of the horses on trainings and competitions increased when using the product
- Tester comment: "The horse has been able to run fast longer time on the homestretch"
- During the test period, there were noticed speeding up on the training drives on the race horses
  - Tester comment: "During the test period, we have been able to fasten the speeds on the training drives. Before the test period, training speeds were on the level of 1.35-1.45 and now we have achieved 1.25 level. Especially at the end of the training drive we have let the horse to run freely and there has been significant fastening on the speed of a final line after the last curve."
- Increased performance could be noticed also on the sweating of the horses. The horses were sweating less than normally on similar training on similar conditions.



## Performance (2)

- Testers told that electrolytes and increased amount of drinking have had a positive effect on performance and especially on maximal performance
- If horse had used electrolytes regularly when the test period started, the results on an increased performance were not as clear on some of those horses.
- Some of the horses were in the basic fitness season (not a race season) and they were not able to estimate the performance and recovery or it was not easy
- 68 % of the testers were pleased (45 %) or very pleased (23 %) on an increased performance
- 32 % of the testers were not able to estimate the effect on performance



# Stamina

- The horses were lively and they go to training sessions on a pleasant way
- The horses were able to move well compared to earlier time when the product was not in use. In addition, there were no noticeable energy drop down when the product was used.
- Despite the warm and sunny summer weather, the horses have had good stamina to train regularly and also hard
- During the test period, horses had been more brisk and they have had a good stamina on the trainings.
- Show jumping horses had enough stamina also when they trained longer courses.
- As a whole, the increase on stamina could be shown on the best way on long training sessions.





# Recovery

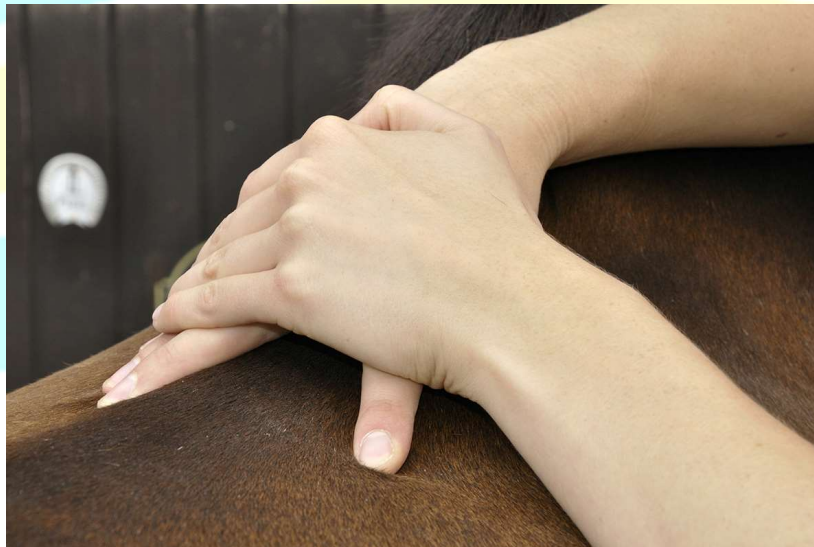
- Recovery was faster than normally
  - Horses were more energetic after trainings
  - Horses were more lively on the mornings after tough training days
  - Readiness to the next tougher training session was better
- After the hiits recovery has been fast and horses had not been as breathless as normally. Also heart beat has decreased fast to the rest heart rate level
- Tester comment: "During the test period we were able to increase the amount of hiit frequency".
- Two similar tough training days next to each other showed that race horses were able to do the same hard training on the next day as they did on the first day. Horses used 60 ml of the product after the first training and on the next morning before the training.





## Recovery (2)

- Horses recovered well from the training sessions and their muscles were relaxed and muscles stayed in good condition
- The horse massager said that the state of being stuck was smaller compared to the massages before the test period was started.
- Tester comment: "Horse who normally have had problems on recovery, was recovered quickly also from the tougher training sessions during the test period by using the product".
- The horses recovered well and they did not which means that their weight did not lose after hard training during the warm summer season. Despite the summer season, horses were always recovered from the previous training.
- Tester comment: "Recovery of the horse has fastened during the test period. In the training sessions we have been following heart rate values of the horse and how fast the horse recovers to the normal state. Even on the hottest summer days recovery has been fast in case of heart rate values and the overall state of the horse"
- Based on the feedback of the test group, it was noticed that the most positive effect on the horses happened in recovery.
- 84 % of the testers were pleased (48 %) or very pleased (36 %) on recovery
- 16 % of the testers were not able to estimate the effect on recovery

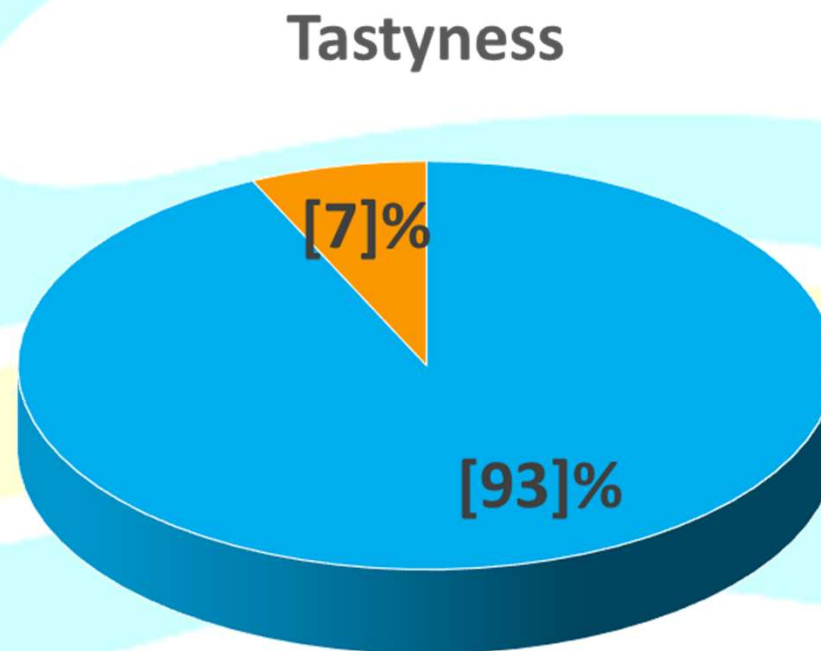


## Increased attentiveness

- Horses were more attentive and they observed the environment more than normally both in training and in other time.
- Horses were alert and they concentrated better than normally.
- Horses reacted more easily on voice and commands.
- Tester comment: "Horse was before quite shy for example for the tractors in the race area. When using the product, horse came more relaxed and it was not firstly running away when new things were shown up".

## Tastyness

- Product was tasty and also horses that were normally choosing their nutrition carefully liked the product
- Only 5/67 horses did not like the product or at least a lot of practising was needed



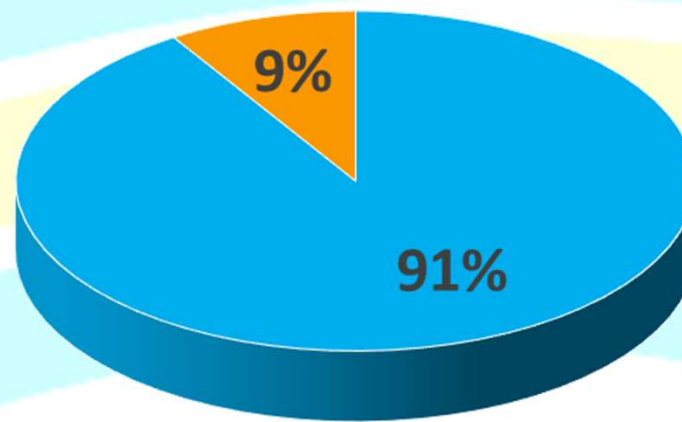
■ Product was tasty    ■ Product was not tasty



## Desire of drinking

- Desire of drinking was increased
- Only 6/67 horses the desire of drinking was not increased and those horses were drinking quite well before the test period

Increased desire of drinking



■ Drinking increased ■ No change on drinking

## Desire of drinking (2)

- Increased desire of drinking
  - Before the test period some of the horses did not drink pure water before or after training. When Green Stallion was added to the water, horses drank the water before and after the training almost without exceptions.
  - Horses drink water also in cold conditions which has normally been a big problem.
  - Drinking and hydration problems have decreased because horses started to drink also more pure water during the whole day when they started to use Green Stallion. Water baskets went empty more efficiently than normally.
  - In case of one horse, the desire of drinking was increased so much that stall was wet in the mornings.
- The product helped to maintain the hydration balance
- Metabolism was increased when the product was used.
- The product was very good to support a daily wellbeing of the horse.

## Desire of drinking (3)

- One stable had used Green Stallion and also race horse specific nutrition (not ready bag feed) for several years. Horses have not had any stomach problems during this time. The stable said that Green Stallion is great because it is natural, unprocessed and mineral rich.
- Horses of the stable also started to drink better when they started to use Green Stallion. Before that Drinking was difficult also on race places. When Green Stallion is in use, horses also drink on race places after race and recovery starts better and faster on that way.
- Horses of the stable are well hydrated and due to that the appearance of a fur of the horses gets better, fur is more shining and muscles can be seen more clearly.
- The stable said that when horse drinks well, it also eats better. Horses of the stable look and feel great. On the pictures, there can be seen the winter fur of two horses of the stable.



# The Tested Testing Lab brand

- Tested Testing Lab is a sign of quality!
- Sport and wellness products are tested on sporting people
- Tested high quality products are awarded the Tested Testing Lab brand licence
- Green Stallion is awarded the Tested Testing Lab brand licence





# Blood glucose measurement

## Blood glucose measurements

- 10 measurements on each animal. 20 animals.
- Wellion Vet Gluco Calea blood glucose meter (own chip for dogs and horses) and Wellion Vet Gluco Calea teststrips were used
- Blood glucose level range reported on the teststrips for the horses were 5,4-8,8 mmol/L
- Blood glucose level was measured before using the product and 30 minutes after using the product because on that time blood glucose level should be at the highest level
  - In addition, testers wrote down possible other nutrition and sport between the measurements
- If single measurements were not reliable, those were not included to the results. For example, if blood glucose of the second measurement was decreased compared to the first measurement before the product was used.

## Results of the blood glucose measurements

|       | Blood glucose before using the product | Blood glucose 30 min after using the product |                    |                           |            | Given nutrition |                   |
|-------|--|--|--------------------|---------------------------|------------|-----------------|-------------------|
| Horse | Average                                | Average                                      | Standard deviation | Increase in blood glucose | Max. Value | Given serving   | Other nutrition   |
| 1     | 5,3                                    | 6,3  | 0,5                | 1,0                       | 6,7        | 60 ml           | mash 1 litra      |
| 2     | 5,8                                    | 6,6  | 0,3                | 0,8                       | 6,9        | 60 ml           | mash 1 litra      |
| 3     | 4,5                                    | 6,0  | 0,9                | 1,5                       | 6,5        | 60 ml           | väkirehu ja heinä |
| 4     | 4,3                                    | 5,4  | 0,7                | 1,1                       | 6,1        | 60 ml           | väkirehu ja heinä |
| 5     | 5,0                                    | 6,2  | 0,6                | 1,2                       | 6,6        | 45 ml           | rehu              |
| 6     | 5,3                                    | 6,3  | 0,5                | 1,0                       | 6,6        | 45ml            | ei                |
| 7     | 5,7                                    | 6,8  | 0,6                | 1,1                       | 7,1        | 30 ml           | rehu              |
| 8     | 5,1                                    | 6,3  | 0,7                | 1,2                       | 6,6        | 45 ml           | rehu              |
| 9     | 5,5                                    | 6,8  | 0,4                | 1,3                       | 7,1        | 45 ml           | rehu              |
| 10    | 5,2                                    | 6,4  | 0,5                | 1,2                       | 6,8        | 45 ml           | rehu              |
| 11    | 5,6                                    | 6,9  | 0,4                | 1,3                       | 7,4        | 45 ml           | rehu              |
| 12    | 5,8                                    | 7,0  | 0,3                | 1,2                       | 7,5        | 45 ml           | rehu              |
| 13    | 5,3                                    | 6,8  | 0,5                | 1,5                       | 7,4        | 45 ml           | ei                |
| 14    | 7,0                                    | 7,7  | 0,4                | 0,7                       | 8,5        | 30 ml           | ei                |
| 15    | 6,2                                    | 7,4  | 0,4                | 1,2                       | 8,0        | 45 ml           | ei                |
| 16    | 5,5                                    | 6,3  | 0,4                | 0,8                       | 6,9        | 45 ml           | ei                |
| 17    | 5,9                                    | 7,0  | 0,5                | 1,1                       | 7,7        | 45 ml           | ei                |
| 18    | 6,2                                    | 7,1  | 0,4                | 0,9                       | 8,2        | 45 ml           | rehu              |
| 19    | 5,5                                    | 6,5  | 0,4                | 1,0                       | 7,0        | 30 ml           | ei                |
| 20    | 5,4                                    | 6,5  | 0,5                | 1,1                       | 7,1        | 45 ml           | ei                |

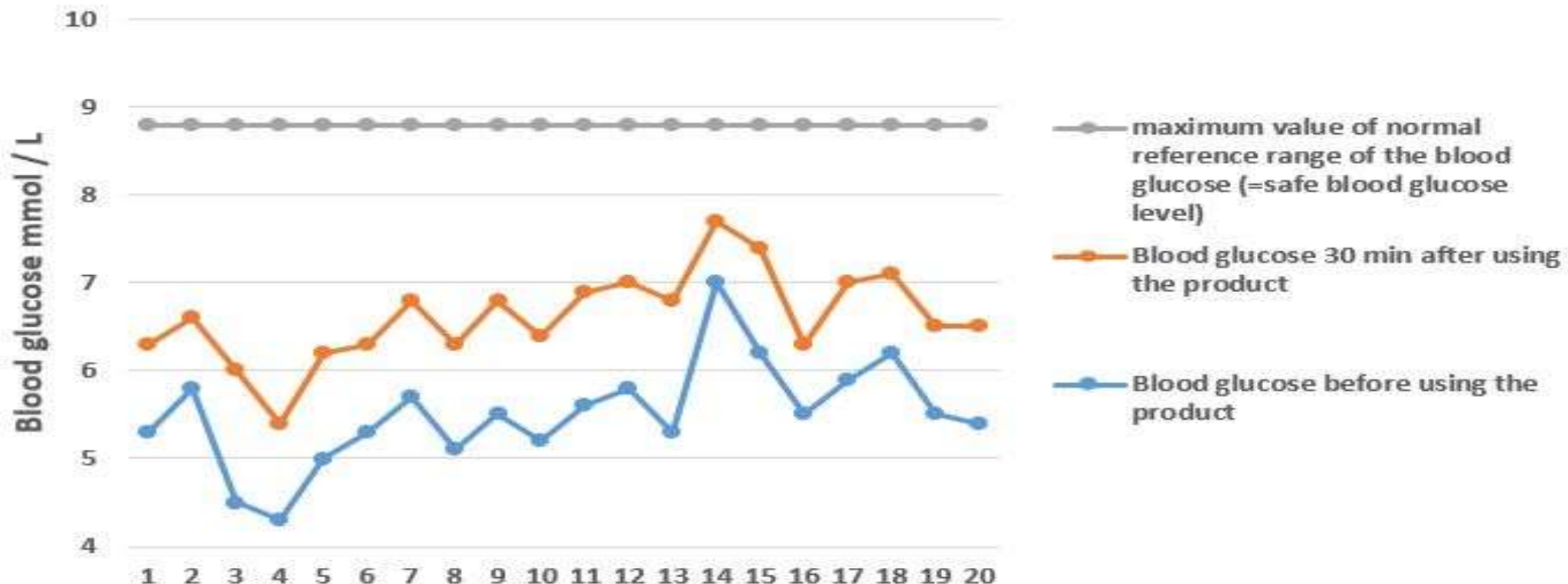
- Maximum value of the blood glucose did not increase over the normal reference range (8,8 mmol/L) on any horse
- Average blood glucose before using the product was 5,5 mmol/L
- Average blood glucose 30 min after using the product was 6,6 mmol/L
- On average blood glucose increased 1,1 mmol/L



## Results of the blood glucose measurement (2)

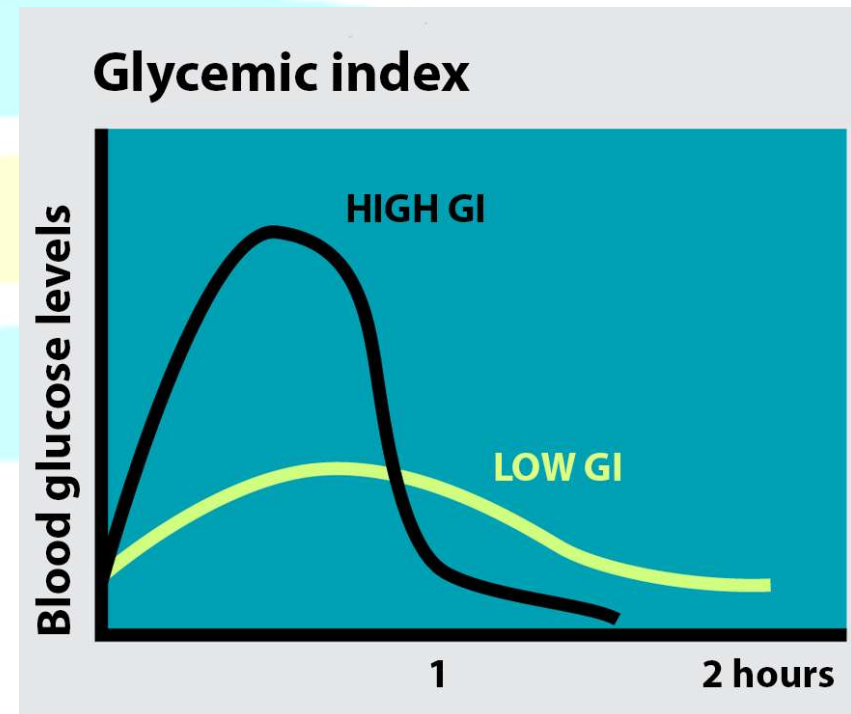
- Figure below illustrates the effect of using the product on blood glucose. Orange curve shows blood glucose 30 min after using the product and grey curve shows the maximum value of normal reference range of the blood glucose. Results show that blood glucose is yet far from the maximum value of the normal reference range of the blood glucose (=safe blood glucose level)

Results of the blood glucose measurement



# Glycemic index

- Glycemic index (GI) illustrates the absorption speed of carbohydrates on the body. This means how fast blood glucose level increases after eating some specific nutrition
- High GI means that blood glucose increases rapidly and in this case blood glucose also comes down rapidly (see black curve on the figure)
- Low GI causes smaller effect on blood glucose (see yellow curve on the figure)



## Glycemic index (2)

- Glycemic index is measured with scale 0 – 110
  - Glycemic index is low between 0 – 55
  - Glycemic index is average between 56 – 69
  - Glycemic index is high between 70 – 110
  - (Source: [askelterveyteen.com/kuinka-glykeeminen-indeksi-lasketaan](http://askelterveyteen.com/kuinka-glykeeminen-indeksi-lasketaan))
- GI of a normal cane sugar is 65 and GI of maltodextrine is 106-137 (source: wikipedia)



## Product comparison

- Green Stallion is based on Masajo Intiaanisokeri-täysruokosokeri and it has low GI which means that it is absorbed slowly given mineral rich energy during a long time.

## More information

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