Protection against stress?

... starts with intestinal regulation!

Brewers' yeast

Linseed oil

Apple pomace

GRANUTOP

Excellence in Yeast

Leiber
Excellence in Yeast
Steppe animals staying in stables

Horses are steppe animals. They are very active in their natural habitat, moving many kilometers and taking in food for about 16 hours a day. Their diet: grasses that are high in fibers but low in calories. Our pet and sport horses are also steppe animals – but they often spend most of the day standing in stables, moving little and getting food that is rich in nutrients two to three times a day. The consequence: digestive problems and colic. In horses, the connection between health, well-being and balanced nutrition is especially important.

Intestine and immune system must work together to provide strong protection

When the intestine is weakened, the whole immune system is affected. Flatulence, intestinal cramps, foul-smelling excrement, diarrhea and colic are all signs of a strained intestinal flora. The intestinal immune cells are unable to cope. The horse’s immune system weakens and no longer provides effective protection against pathogens. The horse is at great risk of catching an infectious disease or developing long-term allergies.

GRANUTOP® – protection from stress starts with intestinal regulation

Inadequate nutrition, species-inappropriate husbandry, stress caused by competition and social factors, aggressive pathogens and mould spores, the intake of medications, antibiotics and cortisone all strain the intestine and therefore the immune system.
Brewers’ yeast, linseed oil and apple pomace – a strong trio

There’s a natural way to ensure the intestine stays healthy: brewers’ yeast. GRANUTOP® contains one-third brewers’ yeast – and not just any brewers’ yeast. GRANUTOP® contains brewers’ yeast from the brewing process – exclusively from breweries that brew according to Germany’s strict brewing purity laws. This brewers’ yeast is bonded to spent grains and is the only kind that also contains traces of hops. Like all other ingredients in GRANUTOP®, the brewers’ yeast is not genetically modified - it’s a completely natural product.

Linseed oil: essential fatty acids for skin and hide
Linseed oil contains many essential polyunsaturated fatty acids (omega-3 and omega-6). Omega-3 fatty acids generally reduce susceptibility to infections and allergic reactions while making skin and coat lither and stronger; they also accelerate the healing process. Because the horse’s system cannot produce essential polyunsaturated fatty acids by itself, they need to be added to the feed each day.

Apple pomace: tastes good and supports the intestinal flora
Apple pomace is a tasty feedstock that’s rich in vitamins and generated in the production of apple juice. Apple pomace supplements GRANUTOP® with its high rate of raw fiber (16-17%) and its high pectin content (ca. 15%). Like brewers’ yeast, the high level of pectin in apple pomace strengthens the development of the intestinal flora and thereby indirectly the immune system as well as the synthesis of important intestinal vitamins.

GRANUTOP® – one supplement, many effects

Many experts on horses have long known about the positive effects of brewers’ yeast on the health, vitality and lifespan of horses.

The production and drying processes both have a crucial impact on the ingredients and thereby the biological value and quality of the brewers’ yeast. That’s why the brewers’ yeast contained in GRANUTOP® is dried according to an especially gentle patented process. It’s the only way to ensure that the brewers’ yeast’s nutrients and active ingredients continue to be biologically effective.

Brewers’ yeast contains high levels of vitamins, minerals and trace elements, particularly Vitamin B1 (thiamine), B2 (riboflavin) and B6 (pyridoxine) as well as folic acid and vitamins. Brewers’ yeast is also one of the raw materials with the highest rate of natural chrome.

• Instead of Biotin: a nicer coat and stronger hooves with brewers’ yeast

That’s not all the brewers’ yeast in GRANUTOP® can do: Brewers’ yeast also helps ensure a better balance of intestinal microorganisms (so-called eubiosis). Microbial synthesis leads to increased Biotin production. Since brewers’ yeast itself also contains a high rate of organically bonded Biotin, this means that it is often not necessary to provide additional Biotin to the animals (see table 1). Biotin plays a key role in the growth of skin, coat and hooves.

<table>
<thead>
<tr>
<th>Valuable organically bonded ingredients of brewers’ yeast compared to soybean extract</th>
<th>Brewers’s yeast</th>
<th>Soybean extract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamins and trace elements (mg/kg TM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>92.0</td>
<td>5.0</td>
</tr>
<tr>
<td>B2</td>
<td>37.0</td>
<td>3.0</td>
</tr>
<tr>
<td>B6</td>
<td>43.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Biotin</td>
<td>630.0</td>
<td>270.0</td>
</tr>
<tr>
<td>Niacin</td>
<td>446.0</td>
<td>36.0</td>
</tr>
<tr>
<td>Folic acid</td>
<td>10.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Pantothenic acid</td>
<td>109.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Copper</td>
<td>33.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Selenium</td>
<td>1.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Zinc</td>
<td>49.0</td>
<td>50.0</td>
</tr>
</tbody>
</table>

The brewers’ yeast in GRANUTOP® produces its full effect in all horses, whatever their size, race or performance range - and regardless of whether they are pet or sport horses.

- **Less faulty fermentation, less diarrhea, less colic**

Brewers’ yeast restores the intestinal flora’s biological balance. It improves the decomposition of raw fibers and the digestibility of nutrients. This leads to fewer instances of faulty fermentation and less hyperacidity. Less watery stool and a reduced risk of colic are signs of a healthy intestinal flora.

- **Brewers’ yeast binds and deactivates pathogens & reduces the pollutant load in feed**

Brewers’ yeast cells have a big surface of specific receptors. They bind pathogens like E.coli, salmonella and clostrides; they also deactivate mycotoxins.

**Mycotoxins** are metabolic products of fungi and moulds that are taken in with roughage like hay, silage and straw or compound feed. Feed contaminated with mould can lead to severe liver and kidney damage in horses. Mycotoxins can cause colic and reduce fertility. Brewers’ yeast can bind and deactivate 70% of mycotoxins.

Prof. Dr. B. Gedek of the Veterinary Department at Munich University says: “Of various types of feed yeasts, only brewers’ yeast (Saccharomyces cerivisiae and carlsbergensis) that has been gently dried is able to produce all needed regenerative physiological effects.”

- **GRANUTOP® strengthens the body’s defensive mechanisms!**

The cells walls of brewers’ yeast contain a high amount of Mannan Oligosaccharide (MOS). MOS consists of Mannan, which binds mycotoxins, and β-Glucans, which stimulate the non-specific immune system. The non-specific immune system functions from birth on. The intestinal mucosa forms a protective barrier against aggressors like viruses, bacteria and mould spores. By forming a so-called “bio-film” on the intestinal mucosa, it is protected from damage by pathogens and their toxins: The immune system is strengthened.
Breeding & raising:

• The brewers' yeast contained in GRANUTOP® increases the fertility of mares and positively influences fetal development due to its high level of folic acid. The foals also benefit from brewers' yeast as they are particularly sensitive to toxins and very susceptible to infections: Brewers' yeast stabilizes the intestines of foals and strengthens their intestinal mucosa because brewers' yeast binds pathogens and mycotoxins contained in fungi.

Targeted use of brewers’ yeast in sports

• Increased muscle growth, better performance! Amino acids, nucleotides, nucleic acids are basic elements of muscle cells. GRANUTOP® provides them with high biological availability so that the brewers’ yeast has a direct impact on muscle growth.

• The vitamin B1 contained in brewers’ yeast is a genuine anti-stress factor. Because it plays a role in the transmission of stimuli and in the central nervous system, vitamin B1 influences stress reduction and nerve stability.
GRANUTOP® in practical trials:
good digestion, a beautiful coat and strong, defined muscles

More than 100 testers all over Germany have fed GRANUTOP® to their horses. The horses given GRANUTOP were sport, breeding and pet horses; foals and adults. They belong to different races and sexes.

Better digestion and less colic
84% of product testers describe a positive impact of GRANUTOP® on the digestion – specifically, a better composition of the excrement and less:

√ diarrhea
√ susceptibility to colic
√ flatulence

√ unpleasant smell of excrement
√ straw and grain traces in excrement
√ watery stool

Monika K.: “I have always fed Leiber-BT yeast. With GRANUTOP®, you could see that the horse had less watery stool/diarrhea. It didn’t seem as bloated and less tense.”

Annette H.: “My horse used to suffer from flatulence. The flatulence is gone!”

Kristina Sch.: “My horse gets flatulent from mould spores. GRANUTOP® substantially reduced the flatulence!”

Positive effects on coat and hooves
70% of product testers described a positive effect on skin and coat, as demonstrated by:

√ faster coat change
√ shiny hide
√ more beautiful long hair
√ 25% of testers observed a positive impact on the hooves

Urte B.: “The coat change was faster and less difficult this year (despite treatment with Corticosal); it was even faster than with our second healthy Icelandic!”

Ginka W.: “Before we bought the horse, it was thin and malnourished. The coat change went badly. GRANUTOP® led to strong muscle growth and good coat change. The summer coat was very pretty!”

Vanessa H.: “My horse kept having trouble with diarrhea when it went to pasture. That stopped completely and the way the coat shines is amazing. Thumbs up for GRANUTOP®!”

Silvia G.: “My mare always had a beautiful coat. Now you can almost see your own reflection in her coat and she has grown stronger muscles.”
GRANUTOP® - more muscles, less tension
62% of product testers described a positive impact on muscle development. In riding, they observed that the horses were:

√ substantially more relaxed
√ in significantly better shape
√ 13% of product testers observed that their horse’s back seemed less sensitive and less tense.
√ 15% perceived their horses to be more quiet and balanced. In riding, this could be seen in a faster willingness to follow the rider’s lead, a greater eagerness to perform and an overall improved shape.

Christina B.: "When I got my 7-year-old gelding, he was unfortunately quite emaciated and had hardly any muscles. Before I fed him GRANUTOP®, he often suffered from flatulence even though he didn’t look bloated. Now his flatulence has been minimized and he is in 100% better shape when I ride him. His muscle development has been so impressive that even my riding coach and fellow riders have asked me, ‘What on earth have you done with him?’"

Vivien W.: “My horse’s muscle development looks really athletic now; he is in good shape and has a wonderfully shiny coat.”

Brewers’ yeast
Naturally stabilizes the gastro-intestinal tract; traces of hops as additional ingredients also have an anti-oxidizing, bacteriostatic and calming effect.

Apple pomace
Horses love the taste. The high rate of raw fiber calms the intestinal flora. Pectin binds toxins.

Linseed oil
Supplies several polyunsaturated fatty acids, e.g. omega-3 fatty acid. Their anti-infective effect boosts intestinal health.
Food supplement for horses

INGREDIENTS
Spent grains, brewers’ yeast, dried apple pomace, linseed oil

Notes: This product is pelletized and consists of the natural components: 31% brewers’ yeast bonded to
47% spent grains, 20% apple pomace, 25% linseed oil

Analytical constituents: crude protein: 24%, crude oils & fats: 9.5%, crude fiber: 12%, crude ash: 5%,
lysine: 1.3%, methionine: 0.3%, sodium: 0.2%

Package sizes: 6 kg bucket and 14.5 kg bag

FEEDING RECOMMENDATION
For the prophylaxis of digestive problems:
Add 200 g/day to usual ration of horse with ca. 600 kg body weight.
Over 2-3 weeks in high-stress situations like digestive problems, coat change, late stage of pregnancy,
lactation, standing at stud: Add 500 g/day to usual ration of horse with ca. 600 kg bodyweight.

Please ensure adequately balanced roughage like hay, straw or silage of ca. 1.5 kg per 100 kg body weight
as well as access to fresh clean water.

Registration number of manufactor: DE NW 1 14084
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