

Effect of **Biolex® MB40** on fattening turkeys

(Prof. J. Tywonzuk, Dr. K. Lipinski, Institut für Tierernährung, Allenstein 2010)

The basis of successful and in particular economic turkey fattening is stable animal health. Eubiosis is of the highest priority as a sign of a balanced gastro-intestinal flora specifically in young animals to enable quick development of a high-performance, and in particular healthy, gastro-intestinal tract. Use of brewers' yeast cell walls is discussed for building and maintaining a balanced gastro-intestinal flora, since they consist of mannanoligosaccharides with a prebiotic effect.

The following test is to examine the influence of **Biolex® MB40** (100% brewers' yeast cell walls) on the development and health of fattening turkeys.

Materials:

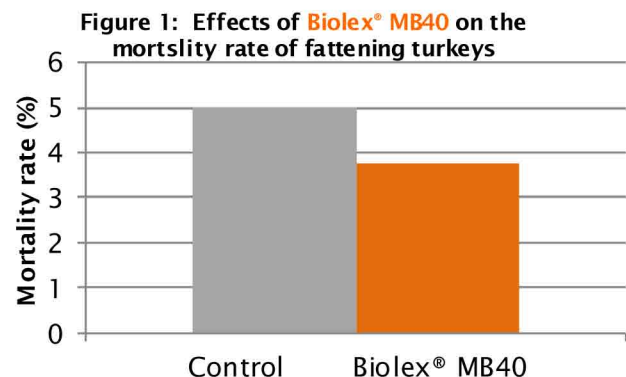
The test had a duration of 15 weeks. 160 fattening turkeys (BIG 6) were available. Table 1 shows the feed ration mixture. The 80 test animals' feed only differed by the addition of **0.2% Biolex® MB40**. To verify the influence of **Biolex® MB40** on the immune system, the lysozyme and γ -globulins immune parameters were determined in the serum of 20 animals each of the control and test groups in the 3rd and 8th test week.

Table 1: Feed rations for fattening turkeys (%)

	PM 1	PM 2	PM 3	PM 4	PM 5
Wheat	51,4	54,4	56,2	61,2	69,1
Soy	39,5	35,7	35,7	30,2	2,6
Fish meal	3	3	0	0	0
Soy oil	1	1,8	3,7	4,2	4,3
Min.+Enzy.	4,6	4,6	3,9	3,9	3,5
Premix	0,5	0,5	0,5	0,5	0,5
EM kcal/kg	2770	2850	2970	3050	3150
CP, g	27,5	25,5	24	22	19
Lys, %	1,78	1,65	1,4	1,26	1,15
Met+Cys	1,1	1,05	0,98	0,93	0,85

Results and Discussion:

Feeding of **Biolex® MB40** led to a reduction of the mortality rate by 1.25 percentage points (see figure 1). This shows that brewers' yeast cell walls have a positive influence on the health status of fattening turkeys.



Lysozyme is an unspecific antibody that directly attacks infectious germs in body liquids and tissues by lysing their cell walls. By adding **Biolex® MB40**, the lysozyme content in fattening turkey serum could be increased both in the third and eighth week of the test (see figure 2).

The content of γ -globulins in the animals' serum was significantly increased at the first measuring point, but there was no statistically secured difference at the second measuring time (see figure 3).

The immune parameter results show the positive influence of **Biolex® MB40** on the animals' immune systems in particular in the early fattening stage. As mentioned initially, **Biolex® MB40** thus supports fattening turkeys in particular in the critical raising stage. The animal's digestive system develops in this period. Its function is essential for fattening performance. Improved animal health from brewers' yeast cell wall feeding is also reflected in the reduced mortality rate throughout the test period.

Key Facts:

Biolex® MB40:

- ◆ Immune parameters lysozyme and γ -Globulins in the serum ↑
- ◆ Immune defences ↑
- ◆ Mortality rate ↓

Result: **Biolex® MB40** therefore is an interesting natural effective substance complex for poultry farming

Figure 2: Effects of **Biolex® MB40** on the lysozyme content in serum of fattening turkey

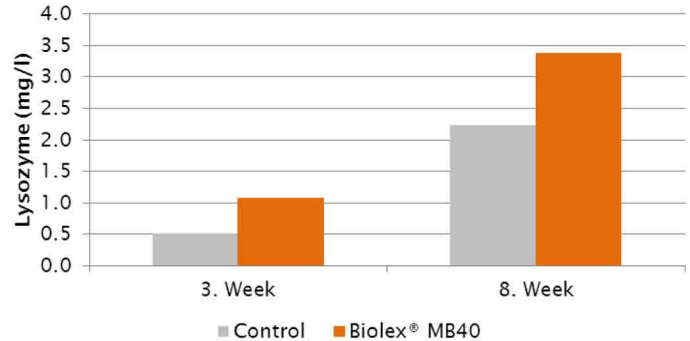


Figure 3: Effects of **Biolex® MB40** on the γ -globuline content in serum of fattening turkey

