

Trial

BIOAKTIV

FOR ANIMAL FEED

Hamburger Leistungsfutter GmbH

Walter Vogt,
Haßlinger Bogen 22
49448 Marl, Dümmer, Germany
Phone: 05443 673

Visited from 11 - 12 a.m. on Feb. 10, 2009

250 dairy cows

Owners: Vogt und Sohn

Liquid manure sample sent to BioCheck in Leipzig

Present: H. Krumbholz, Frau Wolf

HL by phone: Dr. Bockmann

HLAD: Herr Meinel

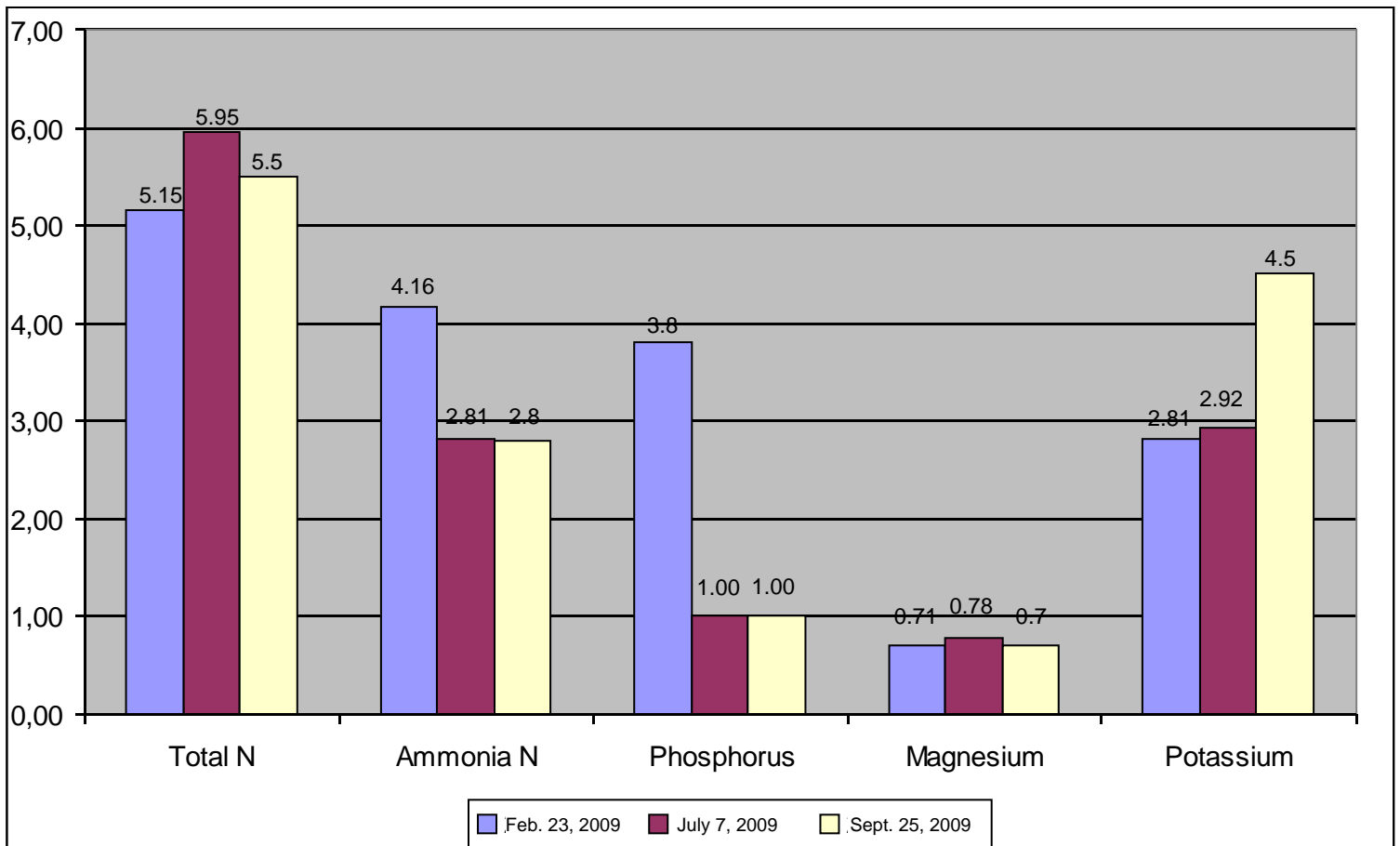
BioAktiv added by Hamburger Leistungsfutter:
mineral feed 1.5 g BioAktiv for animal feed/animal/day

Parameters studied: animal health, germ nu
manure characteristics

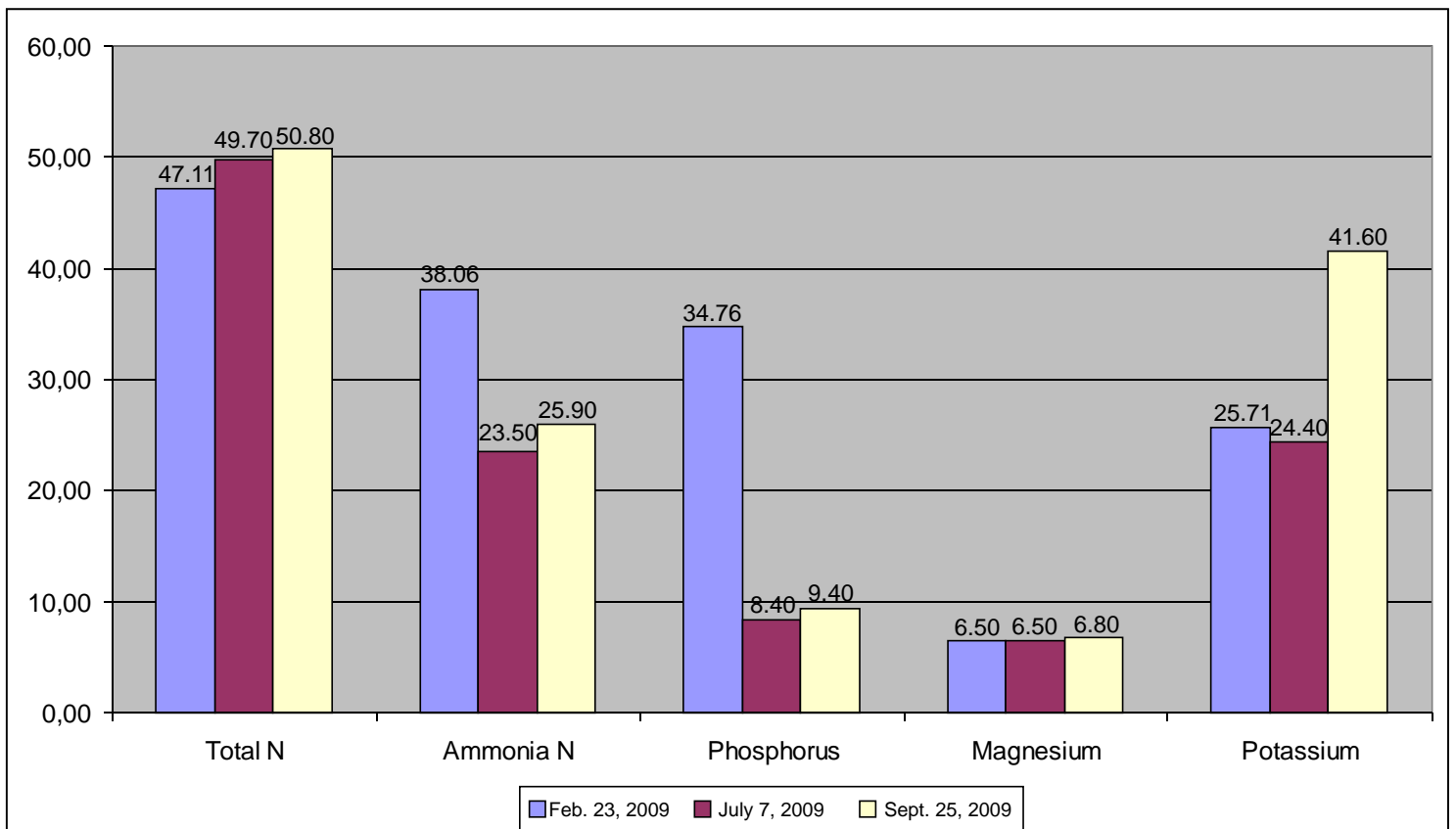
Duration of trial: 9 months



Evaluation of liquid manure samples, kg/m³ of liquid manure



Evaluation of liquid manure samples, kg/m³ of dry matter



Evaluation of liquid manure samples
for: constituents, bacteria (no. of germs)

Owner/herd: Herr Vogt, Haßlinger Bogen 22, 49448 Marl

Sample no. 52220 54138 55220

Sampling date		Feb. 23, 2009		July 7, 2009		Sept. 25, 2009	
Parameter	Unit	g/kg or kg/m ³ liquid manure	g/kg or kg/m ³ dry matter	g/kg or kg/m ³ liquid manure	g/kg or kg/m ³ dry matter	g/kg or kg/m ³ liquid manure	g/kg or kg/m ³ dry matter
Dry matter	kg	109.31	1000	119.82	1000	108.1	1000
Total N	kg	5.15	47.11	5.95	49.7	5.5	50.8
Ammonia N	kg	4.16	38.06	2.81	23.5	2.8	25.9
Phosphorus	kg	3.8	34.76	1	8.4	1	9.4
Magnesium	kg	0.71	6.5	0.78	6.5	0.7	6.8
Potassium	kg	2.81	25.71	2.92	24.4	4.5	41.6
		pH: 7.34		pH: 8.02		pH: 7.60	

Total N: higher, increase approx. 3.7 kg

Phosphorus: greatly reduced, better feed utilization

Microbiological test:

	Feb. 23, 2009	July 7, 2009	
Parameter	Sample 1	Sample 1	Sample 1
Total aerobic mesophilic germ no., KbE/ml (g)	1,5 x 10 ⁹	1,8 x 10 ⁶	2,5 x 10 ⁷
Total anaerobic mesophilic germ no., KbE/ml (g)			1,2 x 10 ⁶
Spore forming aerobes, KbE/ml (g)	2,5 x 10 ⁷	7,0 x 10 ⁷	2,5 x 10 ⁷
Spore forming anaerobes, KbE/ml (g)	1,0 x 10 ⁷	2,5 x 10 ⁶	4,5 x 10 ³
Gram-negative aerobic bacteria, KbE/ml (g)	6,4 x 10 ⁴	3,0 x 10 ⁵	3,6 x 10 ⁴
Coliform bacteria, KbE/ml (g)	6,4 x 10 ⁴	3,0 x 10 ⁵	3,6 x 10 ⁴
Molds, KbE/ml (g)			1,5 x 10 ³
Yeasts, KbE/ml (g)			negative
Salmonellae, AV	negative	negative	negative

massive reduction 2-3-fold potency lower germ nos.

massive reduction 4-fold potency lower germ nos.

KbE = colony-forming units DV = direct method AV = concentration method

The laboratory pointed out that total germ nos. had been massively reduced (see left table) – positive effect

