

**Trial**

# BIOAKTIV

FOR ANIMAL FEED

Hamburger Leistungsfutter GmbH

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Helmut Kamphuis, cattle breeder, Gut Rigterink  
48455 Bad Bentheim  
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Visited from 10.30 - 12 a.m. on Feb. 11, 2009

400 dairy cows

Liquid manure sample sent to BioCheck in Leipzig

Present: H. Krumbholz, Frau Wolf, Dr. Bockmann

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

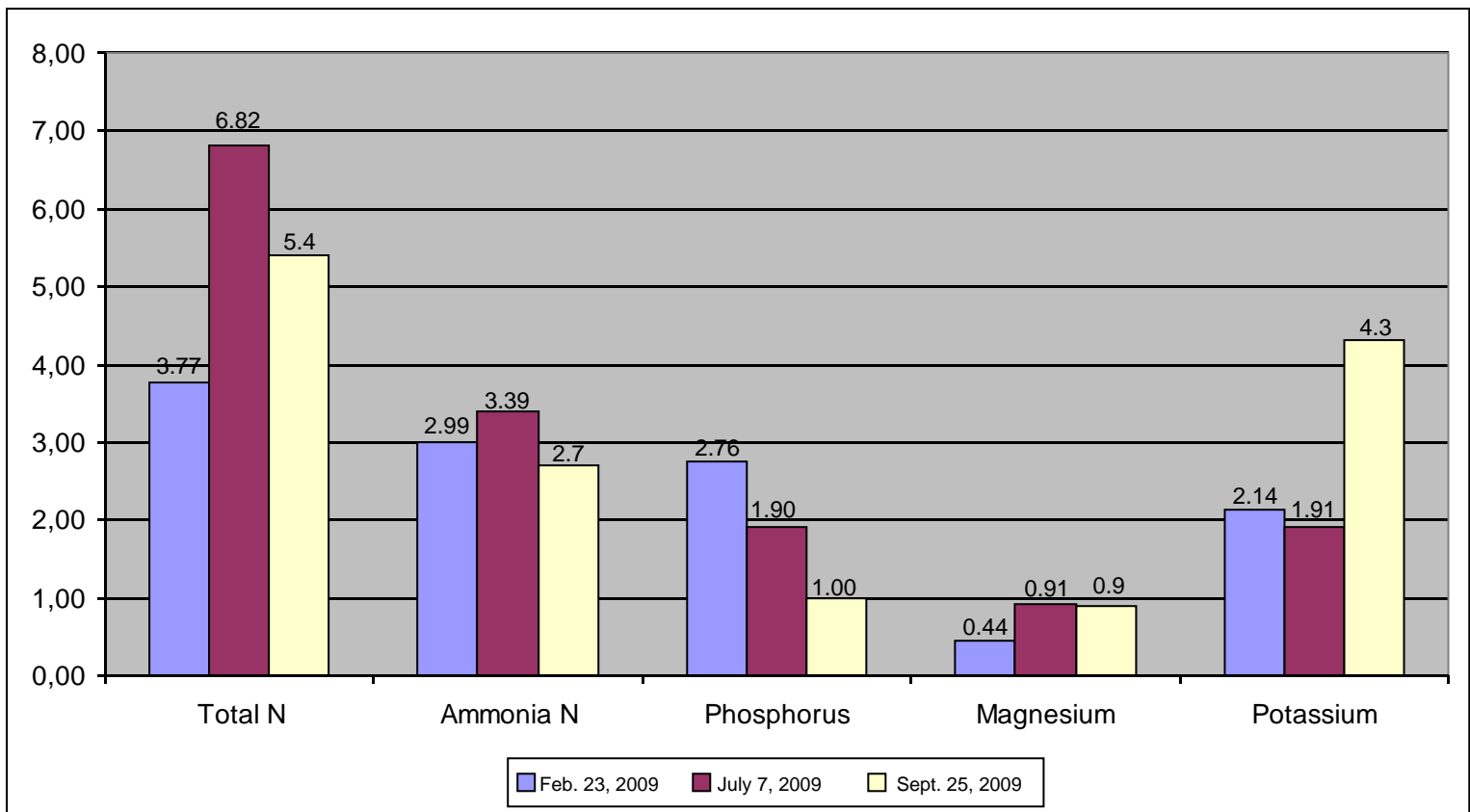
10 kg BioAktiv to be added to liquid manure for front court  
free

Parameters studied: germ number, animal health, liquid  
manure characteristics

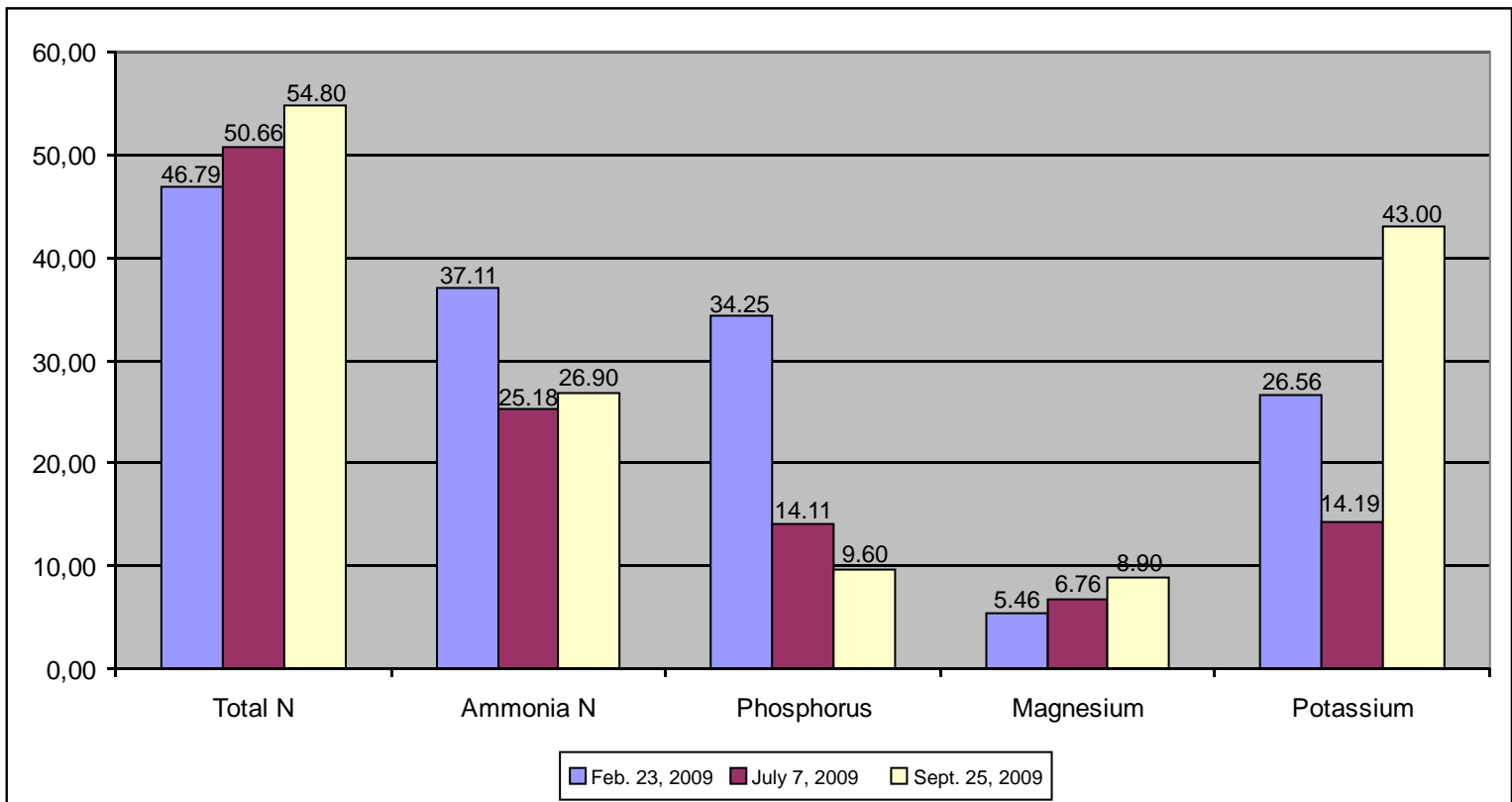
Duration of trial: 1 year



## Evaluation of liquid manure samples, kg/m<sup>3</sup> of liquid manure



## Evaluation of liquid manure samples, kg/m<sup>3</sup> of dry matter



# BIOAKTIV



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

**Owner/herd: Helmut Kamphuis, Gut Rigrerink, Baumwollstraße 31, 48455 Bad Bentheim**

Sample no. 52226 54159 55212

Sampling date Parameter	Unit	Feb. 23, 2009		July 7, 2009		Sept. 25, 2009	
		g/kg or kg/m <sup>3</sup> liquid manure	g/kg or kg/m <sup>3</sup> dry matter	g/kg or kg/m <sup>3</sup> liquid manure	g/kg or kg/m <sup>3</sup> dry matter	g/kg or kg/m <sup>3</sup> liquid manure	g/kg or kg/m <sup>3</sup> dry matter
Dry matter	kg	80.58	1000	134.62	1000	98.6	1000
Total N	kg	3.77	46.79	6.82	50.66	5.4	54.8
Ammonia N	kg	2.99	37.11	3.39	25.18	2.7	26.9
Phosphorus	kg	2.76	34.25	1.90	14.11	1.0	9.6
Magnesium	kg	0.44	5.46	0.91	6.76	0.9	8.9
Potassium	kg	2.14	26.56	1.91	14.19	4.3	43.0
		pH: 7.93		pH: 8.00		pH: 7.88	

**Total N:** higher, increase approx. 8 kg

**Phosphorus:** massive reduction, better feed utilization

Microbiological test:

	Feb. 23, 2009	July 7, 2009	Sept. 25, 2009
Parameter	Sample 1	Sample 1	Sample 1
Total aerobic mesophilic germ no., KbE/ml (g)	4,0 x 10 <sup>7</sup>	2,6 x 10 <sup>6</sup>	1,0 x 10 <sup>7</sup>
Total anaerobic mesophilic germ no., KbE/ml (g)			1,1 x 10 <sup>6</sup>
Spore forming aerobes, KbE/ml (g)	3,4 x 10 <sup>6</sup>	8,0 x 10 <sup>7</sup>	1,2 x 10 <sup>6</sup>
Spore forming anaerobes, KbE/ml (g)	1,0 x 10 <sup>7</sup>	7,0 x 10 <sup>7</sup>	2,3 x 10 <sup>4</sup>
Gram-negative aerobic bacteria, KbE/ml (g)	3,6 x 10 <sup>4</sup>	2,3 x 10 <sup>4</sup>	1,5 x 10 <sup>5</sup>
Coliform bacteria, KbE/ml (g)	3,6 x 10 <sup>4</sup>	2,3 x 10 <sup>4</sup>	1,5 x 10 <sup>5</sup>
Molds, KbE/ml (g)			2,5 x 10 <sup>3</sup>
Yeasts, KbE/ml (g)			negative
Salmonellae, AV	negative	negative	negative

germ nos. reduced

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

