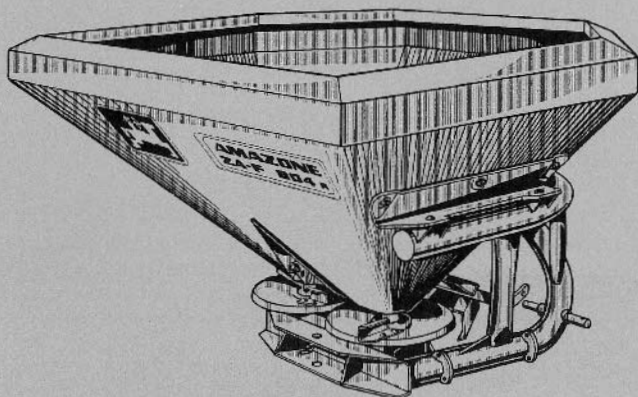




Centrifugal broadcaster

AMAZONE ZA-F

Setting Chart for Fertiliser, Seeds and Slug Pellets



DS 516 (IRL) 01.99

MH 290

Printed in Germany



Before starting to
operate carefully read
the instruction book and
adhere to the safety advice!



Important Notes

Please carefully of the following

May we draw your attention to that the individual spreading characteristics of the fertiliser have a big influence on the working widths and spread rate. For this reason **setting values** can only be taken as a **guide**.

The spreading properties depend on

- The deviations of the physical data (bulk density, grain sizes, sliding ability etc.) - even within the same kind and brand.
- The varying fertiliser condition caused by influences of weather or of storing conditions.

For this reason we **can not assume a guarantee** that your fertiliser even with the same name and from the same manufacturer will have the same spreading characteristics as that of the fertiliser stated in the setting chart.

The stated **setting recommendations** for the **lateral distribution** refers solely to the **distribution of the weight (spread rate)** and **not** to the **nutrient distribution** (this especially refers to fertiliser blends).

With your decision for an **AMAZONE** fertiliser broadcaster you will have access to the „**AMAZONE fertiliser testing service**“ because we would like to assist you to operate at most favourable costs and environment saving. The „**AMAZONE fertiliser test service**“ determines the individual spreading characteristics of your fertiliser from a 3 kg fertiliser sample received and provides **setting recommendations** for the working widths required by you. The **AMAZONE fertiliser testing service** is especially recommendable when uncertainties prevail regarding fertiliser origin, fertiliser description or fertiliser condition or when the fertiliser has not yet been included in this setting chart.

Please ask your **AMAZONE** dealer/distributor for your country's **AMAZONE Fertiliser Testing Service** telephone number and enter it below so that it is readily available.

AMAZONE Fertiliser Testing Service Telephone Number:

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Conversion to Imperial rates and measurements

If you are still more familiar with the imperial rates of lbs/acres and of m.p.h. the following simple conversion system will be of convenience to you: To find the rate of lbs/acre deduct 11 % of the given rates in kg/ha (kilogrammes per hectare).

Example: CAN (Calcium Ammon. Nitr.) 27.5 % N

Spread width: 12 m

Tractor speed: 10 k.p.h. (km/h)

Setting: 23

Spread rate: 150 kg/ha

Calculation: 10 % of 150 = 15.0

1 % of 150 = 1.5

11 % of 150 = 16.5

150.0

16.5

133.5 lbs/acre at 10 k.p.h. = 6.2 m.p.h.

kg/l: In every setting table we mention behind the name of each material also the weight per volume (bulk density) as kilogramme per litre (kg/l) the material had when it was calibrated in our test hall. Bulk densities can vary even within the same product.

Conversion for metric figures of this chart to Imperial figures:

A. Effective spreading widths

5 m	=	16 $\frac{4}{10}$	feet
6 m	=	20	feet
7 m	=	23	feet
8 m	=	26 $\frac{1}{4}$	feet
8.5 m	=	28	feet
9 m	=	29 $\frac{1}{2}$	feet
10 m	=	32 $\frac{3}{4}$	feet
12 m	=	40	feet
15 m	=	50	feet

B. Speeds

1 k.p.h.	=	0.6	m.p.h.
6 k.p.h.	=	3.7	m.p.h.
8 k.p.h.	=	5.0	m.p.h.
10 k.p.h.	=	6.2	m.p.h.
12 k.p.h.	=	7.5	m.p.h.
14 k.p.h.	=	8.7	m.p.h.

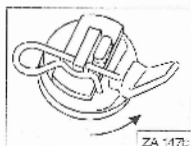
C. Weights

1 kg	=	2.200	lbs
1 lb	=	0.454	kgs

D. Spinner disc heights above ground/crop

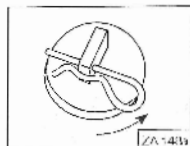
1 cm	=	$\frac{4}{10}$	inch	78 cm	=	30 $\frac{9}{16}$	inches
2 cm	=	$\frac{8}{16}$	inch	80 cm	=	31 $\frac{1}{2}$	inches
3 cm	=	1 $\frac{2}{16}$	inches	82 cm	=	32 $\frac{1}{4}$	inches
5 cm	=	2	inches	83 cm	=	32 $\frac{6}{16}$	inches
45 cm	=	17 $\frac{3}{4}$	inches	84 cm	=	33	inches
50 cm	=	19 $\frac{2}{3}$	inches	86 cm	=	37 $\frac{7}{8}$	inches
55 cm	=	21 $\frac{2}{3}$	inches	89 cm	=	35	inches
60 cm	=	23 $\frac{2}{3}$	inches	90 cm	=	35 $\frac{1}{2}$	inches
63 cm	=	24 $\frac{8}{16}$	inches	93 cm	=	36 $\frac{1}{2}$	inches
65 cm	=	25 $\frac{3}{16}$	inches	94 cm	=	37	inches
68 cm	=	26 $\frac{3}{4}$	inches	95 cm	=	37 $\frac{4}{16}$	inches
70 cm	=	27 $\frac{1}{2}$	inches	96 cm	=	37 $\frac{8}{16}$	inches
75 cm	=	29 $\frac{1}{2}$	inches	97 cm	=	38 $\frac{2}{16}$	inches
76 cm	=	30	inches	100 cm	=	39 $\frac{3}{8}$	inches
77 cm	=	30 $\frac{1}{16}$	inches				

Fig. 1



**Stirrer-base
with -head
and "R" pin inserted**

Fig. 2



**Stirrer-base
without -head but
with "R" pin re-inserted**

1.0 In General

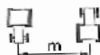
Hints for avoiding spreading errors:

1. Store fertiliser properly (i. e. dry, separate by types and by manufacturers).
2. Set the machine according to the data of this setting chart or according to the recommendations by the AMAZONE fertiliser testing service.
3. Prior to starting to spread conduct a spread rate check.
4. When having unknown types of fertiliser as well as also for a general check set working widths should be checked with the aid of the mobile widths checking kit (option).
5. Two counter-rotating stirrer heads (**Fig.1**) are fitted in the bottom of the double hopper which provide an even flow of the fertiliser onto the spreading disks. For some spreading materials e.g. Urea or green manure seeds the stirrer heads should be removed but the „R-“ pins should be re-inserted with the bows facing in the direction of spinning (**Fig.2**) [refer to hints in the setting chart !].

Explanation for the pictographs used

 540

The pto speed should generally be 540 min⁻¹ (r.p.m.). Possible deviations are stated in the charts.



Working width [m]

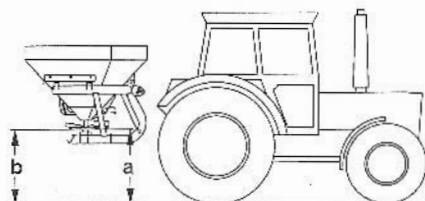


Fig. 3

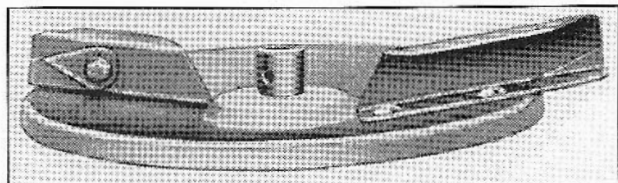


Fig. 4

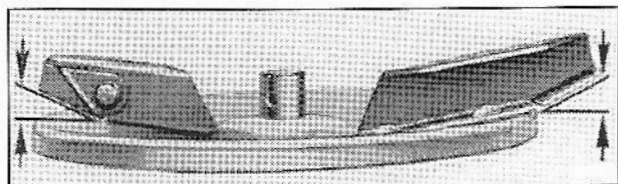


Fig. 5

Mounting height for late top dressing: "B"

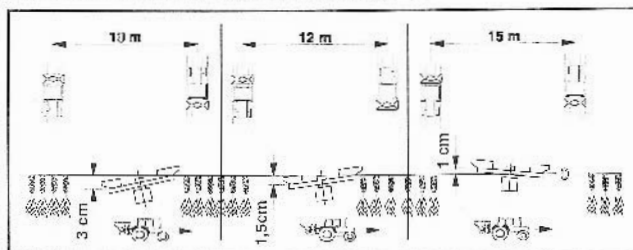


Fig. 6

2.0 Setting the mounting height

Set the machine to the operating height on the field to be spread with a filled hopper exactly to the settings given in the setting chart. The mounting height is measured at the spinner discs front- and rear-edge each from the surface of the ground (Fig. 3).

2.1 Normal fertilising

The mounting heights (in cm) stated are valid for normal fertilising. **For normal fertilising the swivel blades of the spinner vanes are usually in a „downward“ position (Fig. 4).**

For fertilising in spring when the crop is grown already to a height of 10 - 40 cm, **one half of the grown height should be added to the mounting heights stated (e. g. 80/80).** Thus at a **plant height of 30 cm = mounting height 95/95** should be set. At taller crop heights the machine should be set up according to the settings mentioned for late top dressing (para. 2.2). When crops are very dense (rape) the fertiliser spreader should be set with the mounting height stated (e. g. 80/80) **above** the crop height. Should this still be impossible due to a higher plant height, the machine should also be set up according to the settings for late top dressing (para. 2.2).

2.2 Late top dressing

For late top dressing the swivel blades of the vanes should be swivelled in the „up“ position without slackening the nuts and without the use of any tools (Fig. 5). This will raise the throwing curve of the fertiliser.

Set the mounting height of the broadcaster with the aid of the tractor 3-point linkage according to fig.6. Should the lifting height of the tractor's hydraulics be insufficient, a crop lowerer (option) is necessary which bends down the ears of the grain in the area of the spreading discs.



If the universal joints of the pto-shaft is angled by more than 25°, use a wide angle pto-shaft (option).

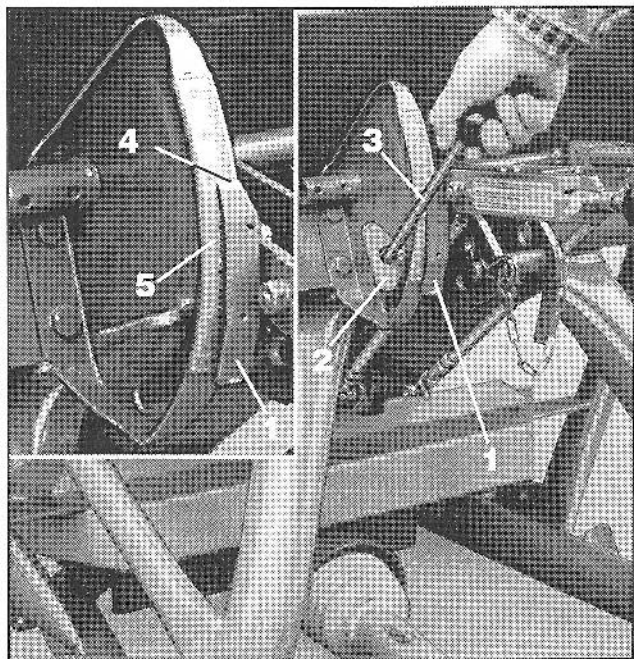


Fig. 7

3.0 Setting the spread rate [kg/ha]

Conduct the spread rate setting only while the shutter slides are in a closed position.

3.1 Determining the shutter slide position with the aid of the setting chart (Standard execution).

Take the shutter slide position immediately from the setting chart- under consideration of the factors: „kind of fertiliser“, „working width“, „intended forward speed“ and „desired spread rate“.

The statement [kg/l] refers to the bulk density of the corresponding fertiliser (weight of one litre in volume of fertiliser).

The required shutter slide position is set at the stop (Fig.7/1) as follows:

- Slacken the clamping bolt (Fig. 7/2) with the aid of the lever extension rod (Fig. 7/3) .
- Move the reading-off edge of the stop plate (Fig. 7/4) to that position of the scale (Fig. 7/5) which was taken from the setting chart.
- Re-tighten clamping bolt again.

Determining the shutter slide position for such **working widths** and/or **forward speeds** which are n o t mentioned in the setting chart.

Example:

Kind of fertiliser:	CAN 27 % N granular BASF
Wanted working width:	9 m
Wanted spread rate:	415 kg/ha
Intended forward speed:	7 k.p.h

$$\frac{9 \text{ m} \times 415 \text{ kg/ha} \times 7 \text{ k.p.h}}{100} = 261$$

Search for the figure **261** in the table in column 10 m working width and 10 k.p.h. and read off shutter slide position '13'.

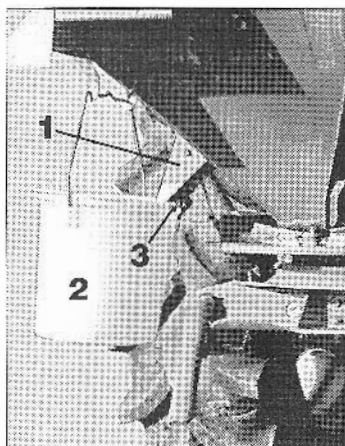


Fig. 8

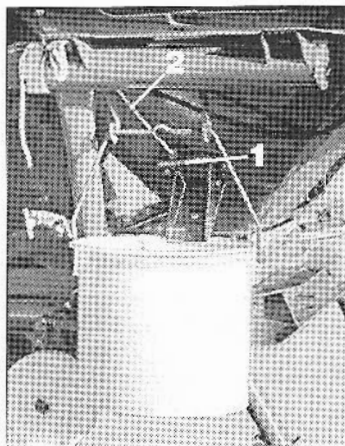


Fig. 9

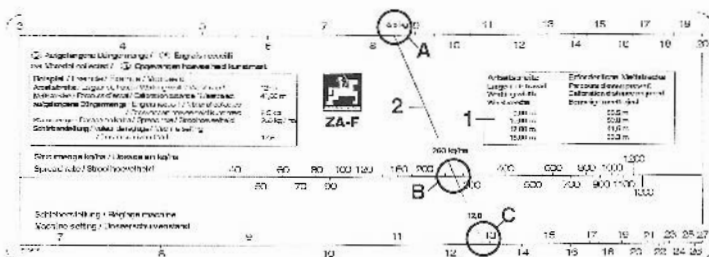


Fig. 10

3.2 Determining the shutter slide position without setting chart but with the aid of the calibration device (Fig. 8/1).

Determine shutter slide position as follows:

Example:

Desired working width:	12 m
Wanted spread rate:	260 kg/ha
Intended forward speed:	8 k.p.h



When determining the shutter slide position both shutter slides remain in 'closed' position and the pto-shaft stays disengaged.

- Hang in bucket (Fig. 8/2) by its handle to the hooks provided at the machine and let the clamping device (Fig. 8/3) lock in.
- Completely open shutter slide (Fig.9/1) of the side calibration opening by pulling the rope (Fig.9/2) for about 5 seconds (to ensure an even flow of fertiliser). Thereafter pour the collected fertiliser back into the hopper of the broadcaster.
- From the table (Fig. 10/1) of the nomograph (Fig.10) read off the required measuring distance (41,6m) for the working width (12 m). Accurately measure out the given distance and mark the beginning and the end point of the calibration distance on the field.
- Accurately drive along the measured calibration distance from the beginning to the end point under field conditions, **i.e. with the intended constant forward speed**. By pulling the rope against the stop open completely and accurately the side outlet at the beginning point of the calibration distance and shut it again at the end point.
- Weigh the collected amount of fertiliser inside the collecting bucket. When travelling along the calibration distance (41,6 m) at a constant forward speed (8 k.p.h.) the amount of fertiliser collected weighs in this example 8,5 kgs.

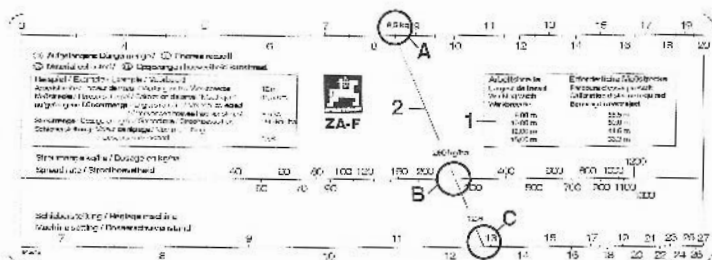


Fig. 10

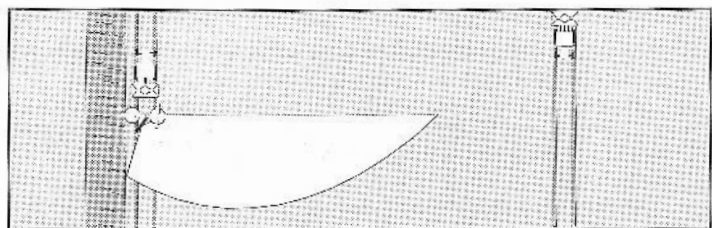


Fig. 11

The nomograph consists of :

1. One upper scale "A" for the collected spread rate between „3 and 20" kgs.
 2. One middle scale "B" for the desired spread rate between „40 and 1300" kgs/ha.
 3. One lower scale „C" for the shutter slide position from „7 to 27".
- For the collected fertiliser amount (8,5 kg) look for the figure on the upper scale (Fig. 10/A) and for the desired spread rate (260 kg/ha) find the figure on the middle scale (Fig. 10/B). Now connect the two points by a straight line (Fig. 10/2) [e.g. by a rule, twine etc.], so that its downward extension shows on the lower scale (Fig. 10/C) the required shutter slide position „12,8".

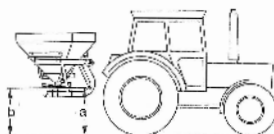
4.0 Boundary resp. one side spreading with the boundary spread limiter (option) (Distance from tractor centre to the fields side 1,5 to 2,0 m)

If the first tram line is placed within the first drill bout (with a 3 m seed drill the distance of the first tram line from the fields edge is 1.5 m), the boundary spread limiter is used by simultaneously closing one shutter slide (Fig.11).

This way the fertiliser will only be thrown 1.5 to 2 m toward the fields edge.

5.0 Mounting height a/b [cm]

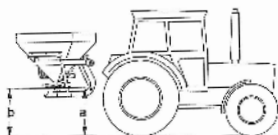
5.1 Mineral fertiliser



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Mounting height a/b [cm]

Type of fertiliser				Spread- rates s. page
	10 a/b	12 a/b	15 a/b	
IFI NET Nitrate Richardsons Chalk N 27,5%N prills	80/87	90/96	—	20
IFI Supernet, Richardsons Chalk 5 27% N + 3,5% S gran.	80/81	80/83	80/87	21
KEMIRA Kayenne Nitrocrop 27%N gran.	80/81	80/83	80/86	21
GOULDINGS prilled CAN 27,5% N	80/87	90/96	—	22
GOULDINGS Granular CAN 27,5% N	80/81	80/83	80/87	21
GOULDINGS Sulfa CAN gran.	80/81	80/83	80/85	21
GRASSLAND CAN 27,5% N gran.	80/81	80/83	80/87	21
IFI TOPPER 46% N Richardsons Nitro 46 gran.	70/70	80/80	—	23
ALBATROS Granular Urea 46% N	80/82	80/86	—	23
GOULDINGS Granular Urea 46% N	80/80	80/85	—	23
GRASSLAND Granular Urea 46% N	80/82	80/86	—	23



Mounting height a/b [cm]

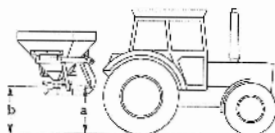
Type of fertiliser				Spread- rates s. page
	10 a/b	12 a/b	15 a/b	
IFI NET Urea $\varnothing$ 0,99 mm Richardsons Urea 46% N prills	 80/81	—	—	24
IFI Pasture Sward, Richardsons Two Sward NPK 27-2,5-10 gran.	80/82	80/86	—	25
IFI Cut Sward, Richardsons Silage Sward NPK 24-2,5-10 gran.	80/78	80/81	85/90	25
GRASSLAND Pasture Graze NPK 27-2,5-5 + S gran.	80/82	80/86	 90/95	26
GRASSLAND Silage Cut NPK 24-2,5-10 gran.	80/80	80/82	80/85	21
KEMIRA Maxisward NPK 27-2,5-5 gran.	80/82	80/86	—	26
KEMIRA Slurry Balancer NPK 25-2,2-4,2 gran.	80/82	80/86	—	26
KEMIRA Silage Crop NPK 24-2,5-10 gran.	80/83	80/87	—	26
ALBATROS NPK 27-2,5-5 gran.	80/81	80/83	90/97	21
ALBATROS NPK 18-6-12 gran.	80/81	80/83	80/87	21
ALBATROS NPK 10-10-20 gran.	80/81	80/83	80/85	21



Lift swivel blades on the longer vanes.

Lift swivel blades on all vanes.

Stirrer heads removed, but 'R'-pins re-inserted.



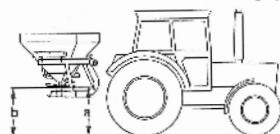
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Mounting height a/b [cm]

Type of fertiliser				Spread- rates s. page
	10 a/b	12 a/b	15 a/b	
GOULDINGS NPK 10-10-20 gran.	80/81	80/83	80/86	25
GOULDINGS Richland NPK gran.	80/81	80/83	80/86	25
GRASSLAND NPK 18-6-12 + S gran.	80/80	80/82	80/84	25
KEMIRA NPK 18-6-12+S gran.	80/81	80/83	80/85	21
KEMIRA NPK 10-10-20 gran.	80/81	80/83	80/86	27
KEMIRA Kayenne Sulphur NK 25-0-12 + S gran.	80/81	80/83	80/86	27
ALBATROS Sure - Grass NK 20-0-15 gran.	80/81	80/83	80/87	27

5.2 Seeds and slug pellets

IRL
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Mounting height a/b [cm]

Type of seed or material											Spread- rate s. page
	5	6	7	8	8,5	9	10	12	15		
Wheat (not dressed)								 80/80		28	
Barley (cleaned, not dressed)								 80/80		28	
Oats (not dressed)								 80/85		28	
Rye (not dressed)								 80/80		29	
White lupins						80/80				29	
Tick beans (dressed)						80/85				30	
Yellow mustard		 80/85		 90/93						30	
Winter vetches								 80/87	 90/93	31	
Rape		 80/85						 80/85		32	
Perennial Rye Grass			80/80							32	
Oil radish				80/85						33	
White clover						80/80				33	
Lucerne	 80/80									33	
Autumn Tumips					80/80					34	
Winter bird rape		80/80								34	
Phacelia		80/80								34	
Slug Pellets Mesuroi; Skipper; Spiless-Urania		80/80					 80/80	 80/80		35	



Lift swivel blades on all vanes.

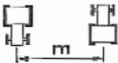
Stirrer heads removed, but 'R'-pins re-inserted.

6.0 Shutter slide position for spread rates [kg/ha]

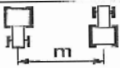
6.1 Mineral Fertilisers

IFI NET Nitrate Richardsons Chalk N 27,5% N prills

0,95 kg/l

Lever setting pos.															
	10					12					15				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
08	70	52	42	35	30	58	44	35	29	25	47	35	28	23	20
09	119	89	71	59	51	99	74	59	49	42	79	59	47	40	34
10	193	145	110	97	83	161	121	97	81	69	129	97	77	64	55
11	287	215	172	143	123	239	179	143	120	102	191	143	115	96	82
12	380	285	226	180	163	316	237	190	158	136	253	190	152	127	106
13	477	358	286	239	204	398	298	239	199	170	318	239	191	159	133
14	572	429	343	286	245	477	358	286	239	204	382	286	229	191	164
15	668	501	401	334	286	557	418	334	278	239	445	334	267	223	191
16	763	572	458	381	327	636	477	381	318	272	509	381	305	254	218
17	856	642	514	428	367	713	535	428	357	308	571	428	342	285	245
18	947	710	568	473	406	789	592	473	395	338	631	473	379	316	271
19	1035	776	621	518	444	863	647	518	431	370	690	518	414	345	296
20	1120	840	672	560	480	934	700	560	467	400	747	560	448	373	320
21	1202	902	721	601	516	1002	751	601	501	429	802	601	481	401	344
22	1281	961	769	641	548	1068	801	641	534	458	864	641	512	427	366
23	1357	1018	814	678	582	1131	848	678	565	485	905	678	543	452	388
24	1430	1073	868	715	613	1192	894	715	590	511	953	715	572	477	409
25	1501	1128	901	751	643	1251	938	751	626	536	1001	751	600	500	429
26	1571	1178	942	785	673	1309	982	785	655	561	1047	785	626	524	449
27	1640	1230	984	820	703	1367	1025	820	683	586	1093	820	656	547	469

IFI Supernet, Richardsons Chalk 5 27% N + 3,5% S gran.	1,05 kg/l
KEMIRA Kayenne Nitrocrop 27% N gran.	1,03 kg/l
GOULDINGS Granular CAN 27,5% N	1,03 kg/l
GOULDINGS Sulfa CAN gran.	1,00 kg/l
GRASSLAND CAN 27,5% N gran.	1,03 kg/l
GRASSLAND Silage Cut NPK 24-2,5-10 gran.	1,00 kg/l
ALBATROS NPK 27-2,5-5 gran.	0,95 kg/l
ALBATROS NPK 18-6-12 gran.	0,95 kg/l
ALBATROS NPK 10-10-20 gran.	0,95 kg/l
KEMIRA NPK 18-6-12 + S gran.	0,99 kg/l

Lever setting pos.															
	10					12					15				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
8	64	48	38	32	27	53	40	32	27	23	42	32	25	21	18
9	108	81	65	54	46	90	67	54	45	39	72	54	43	36	31
10	176	132	106	88	75	147	110	88	73	63	117	88	70	59	50
11	261	196	157	131	112	218	183	131	109	93	174	131	105	87	75
12	346	259	207	173	148	288	216	173	144	123	230	173	138	115	99
13	434	326	261	217	186	362	271	217	181	155	290	217	174	145	124
14	521	391	313	261	223	434	326	261	217	186	347	261	208	174	149
15	608	456	365	304	261	507	380	304	253	217	405	304	243	203	174
16	695	521	417	347	298	579	434	347	289	248	463	347	278	232	198
17	779	585	468	390	334	649	487	390	325	278	520	390	312	260	223
18	862	647	517	431	370	718	539	431	359	308	575	431	345	287	246
19	942	707	565	471	404	785	589	471	393	337	628	471	377	314	269
20	1020	765	612	510	437	850	638	510	425	364	680	510	408	340	291
21	1095	821	657	547	469	912	684	547	456	391	730	547	438	365	313
22	1166	875	700	583	500	972	729	583	486	417	778	583	467	389	333
23	1236	927	741	618	530	1030	772	618	515	441	824	618	494	412	353
24	1302	977	781	651	558	1085	814	651	543	465	868	651	521	434	372
25	1367	1025	820	683	586	1139	854	683	570	488	911	683	547	456	391
26	1430	1073	858	715	613	1192	894	715	596	511	954	715	572	477	409
27	1493	1120	896	747	640	1244	933	747	622	533	995	747	597	498	427
28	1556	1167	934	778	667	1297	973	778	648	556	1038	778	623	519	445

Lever setting pos.															
	10					12					15 m				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
08	77	58	46	39	33	64	48	39	32	28	52	39	31	26	22
09	131	98	79	66	56	109	82	66	55	47	87	66	52	44	37
10	214	160	128	107	92	178	134	107	89	76	143	107	86	71	61
11	318	238	191	159	136	265	199	159	132	113	212	159	127	106	91
12	420	315	252	210	180	350	263	210	175	150	280	210	168	140	120
13	528	396	317	264	226	440	330	264	220	189	352	264	211	176	151
14	634	475	380	317	272	528	396	317	264	226	422	317	253	211	181
15	739	555	444	370	317	616	462	370	308	264	493	370	298	246	211
16	844	633	507	422	362	704	528	422	352	302	563	422	338	281	241
17	947	711	568	474	406	790	592	474	395	338	632	474	379	316	271
18	1048	786	629	524	449	873	655	524	437	374	699	524	419	349	299
19	1146	859	687	573	491	955	716	573	477	409	764	573	458	382	327
20	1240	930	744	620	531	1033	775	620	517	443	827	620	496	413	354
21	1331	998	798	665	570	1109	832	665	554	475	887	665	532	444	380
22	1418	1064	851	709	608	1182	886	709	591	506	945	709	567	473	405
23	1502	1126	901	751	644	1262	939	751	626	536	1001	751	601	501	429
24	1583	1187	950	791	678	1319	999	791	660	565	1055	791	633	528	452
25	1662	1246	997	831	712	1385	1039	831	692	593	1108	831	665	554	475
26	1739	1304	1043	869	745	1449	1087	869	724	621	1159	869	695	580	497
27	1815	1361	1089	908	778	1513	1134	908	755	648	1210	908	728	605	519
28	1892	1419	1135	946	811	1577	1182	946	786	676	1261	946	757	631	541

IFI TROPPER Richardsons NITRO 46 gran.

0,75 kg/l

ALBATROS Granular Urea 46% N

0,73 kg/l

GOULDINGS Granular Urea 46% N

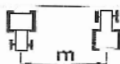
0,75 kg/l

GRASSLAND Granular Urea 46% N

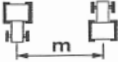
0,74 kg/l

Lever setting pos.																				
	10					12														
	km/h					km/h					km/h									
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
08	48	36	29	24	21	40	30	24	20	17										
09	82	61	49	41	35	68	51	41	34	29										
10	133	100	80	67	57	111	83	67	55	48										
11	198	148	119	99	85	165	124	99	82	71										
12	262	196	157	131	112	218	164	131	109	93										
13	329	247	197	164	141	274	205	164	137	117										
14	395	296	237	197	169	329	247	197	164	141										
15	460	345	276	230	197	384	288	230	192	164										
16	526	394	315	263	225	438	329	263	219	188										
17	590	442	354	295	253	492	369	295	246	211										
18	653	489	392	326	280	544	408	326	272	233										
19	713	535	428	357	306	594	446	357	297	255										
20	772	579	463	386	331	643	483	386	322	276										
21	829	621	497	414	355	690	518	414	345	296										
22	883	662	530	441	378	736	552	441	368	315										
23	935	701	561	468	401	779	584	468	390	334										
24	986	739	591	493	422	821	616	493	411	352										

Lever setting pos.															
	10														
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
10	70	52	42	35	30										
11	122	91	73	61	52										
12	180	135	106	90	77										
13	243	185	148	123	105										
14	314	235	188	157	135										
15	380	285	228	190	163										
16	446	334	268	223	191										
17	516	387	310	258	221										
18	584	438	350	292	250										
19	650	487	390	325	279										
20	720	540	432	360	309										
21	788	591	473	394	338										
22	856	642	514	428	367										
23	924	693	554	462	396										
24	990	742	594	495	424										
25	1060	795	636	530	454										



IFI Pasture Sward, Richardsons Two Sward	0,94 kg/l
IFI Cut Sward, Richardsons Silage Sward	0,92 kg/l
GOULDINGS NPK 10-10-20 gran.	1,01 kg/l
GOULDINGS Richard NPK gran.	1,01 kg/l
GRASSLAND NPK 18-6-12 + S gran.	0,97 kg/l

Lever setting pos.															
	10					12					15				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
08	68	51	41	34	29	57	43	34	28	24	46	34	27	23	20
09	116	87	70	58	50	97	72	58	48	41	77	58	46	39	33
10	189	142	113	94	81	157	118	94	79	67	126	94	76	63	54
11	280	210	168	140	120	234	175	140	117	100	187	140	112	93	80
12	371	278	223	185	159	309	232	185	155	132	247	185	148	124	106
13	466	350	280	233	200	389	291	233	194	167	311	233	186	155	133
14	559	420	336	280	240	466	350	280	233	200	373	280	224	186	160
15	653	490	392	326	280	544	408	326	272	233	435	326	261	218	187
16	745	559	447	373	319	621	466	373	311	266	497	373	298	248	213
17	837	627	502	418	359	697	523	418	349	299	558	418	335	279	239
18	925	694	555	463	397	771	578	463	386	331	617	463	370	308	264
19	1012	759	607	506	434	843	632	506	422	361	674	506	405	337	289
20	1095	821	657	547	469	912	684	547	456	391	730	547	438	365	313
21	1175	881	705	587	504	979	734	587	490	420	783	587	470	392	336
22	1252	939	751	626	537	1043	783	626	522	447	835	626	501	417	358
23	1326	995	796	663	568	1105	829	663	553	474	884	663	530	442	379
24	1398	1048	839	699	599	1165	874	699	582	499	932	699	559	466	399
25	1467	1100	880	734	629	1223	917	734	611	524	978	734	587	489	419
26	1535	1151	921	768	658	1279	959	768	640	548	1023	768	614	512	439
27	1603	1202	962	801	687	1335	1002	801	668	572	1068	801	641	534	458

GRASSLAND Pasture Graze NPK 27-2,5-5 + S gran.

0,98 kg/l

KEMIRA Maxisward NPK 27-2,5-5 gran.

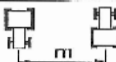
0,93 kg/l

KEMIRA Slurry Balancer NPK 25-2,2-4,2 gran.

0,91 kg/l

KEMIRA Silage Crop NPK 24-2,5-10 gran.

0,93 kg/l

Lever setting pos.															
	10					12					15				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
06	66	49	39	33	28	55	41	33	27	23	44	33	26	22	19
09	111	84	67	56	48	93	70	56	46	40	74	56	45	37	32
10	182	136	109	91	78	151	114	91	76	65	121	91	73	61	52
11	270	202	162	135	116	225	168	135	112	96	180	135	108	90	77
12	357	267	214	178	153	297	223	178	149	127	238	178	143	119	102
13	448	336	269	224	192	373	280	224	187	160	299	224	179	149	128
14	538	403	323	269	230	448	336	269	224	192	358	269	215	179	154
15	627	471	376	314	269	523	392	314	261	224	418	314	251	209	179
16	717	537	430	358	307	597	448	358	299	256	478	358	287	239	205
17	804	603	482	402	345	670	503	402	335	287	536	402	322	268	230
18	889	667	534	445	381	741	556	445	371	318	593	445	356	296	254
19	972	729	583	486	417	810	608	486	405	347	648	486	389	324	278
20	1052	789	631	526	451	877	658	526	438	376	702	526	421	351	301
21	1129	847	678	565	484	941	706	565	471	403	753	565	452	376	323
22	1203	903	722	602	516	1003	752	602	501	430	802	602	481	401	344
23	1275	958	765	637	546	1062	797	637	531	455	850	637	510	425	364
24	1343	1008	806	672	576	1119	840	672	560	480	896	672	537	448	384
25	1410	1058	846	705	604	1175	881	705	588	504	940	705	564	470	403
26	1476	1107	885	738	632	1230	922	738	615	527	984	738	590	492	422
27	1540	1155	924	770	660	1284	963	770	642	550	1027	770	616	513	440

(kalka1.xls)

KEMIRA NPK 10-10-20

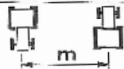
1,03 kg/l

KEMIRA Kayenne Sulphur NK 25-0-12 + S gran.

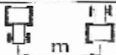
1,02 kg/l

ALBATROS Sure - Grass NK 20-0-15 gran.

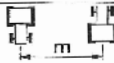
1,04 kg/l

Lever setting pos.															
	10					12					15				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
08	74	56	45	37	32	62	47	37	31	27	50	37	30	25	21
09	126	95	76	63	54	105	79	63	53	45	84	63	51	42	36
10	206	155	124	103	88	172	129	103	86	74	137	103	82	69	59
11	306	229	183	153	131	255	191	153	127	109	204	153	122	102	87
12	405	303	243	202	173	337	253	202	169	144	270	202	162	135	116
13	508	381	305	254	218	424	318	254	212	182	339	254	203	169	145
14	610	458	366	305	261	508	381	305	254	218	407	305	244	203	174
15	712	534	427	356	305	593	445	356	297	254	475	356	285	237	203
16	813	610	488	403	348	677	508	406	339	290	542	406	325	271	232
17	912	684	547	456	391	760	570	456	380	326	608	456	365	304	261
18	1009	757	605	505	432	841	631	505	420	360	673	505	404	336	288
19	1103	827	662	552	473	919	689	552	460	394	735	552	441	368	315
20	1194	895	716	597	512	995	748	597	497	426	796	597	478	398	341
21	1281	961	769	641	549	1068	801	641	534	458	854	641	513	427	366
22	1365	1024	819	683	595	1136	853	683	569	488	910	683	546	455	390
23	1446	1085	868	723	620	1205	904	723	603	516	964	723	578	482	413
24	1524	1143	914	762	653	1270	953	762	635	544	1016	762	610	508	435
25	1600	1200	960	800	686	1333	1000	800	667	571	1067	800	640	533	457
26	1674	1256	1004	837	717	1395	1046	837	698	598	1116	837	670	558	478
27	1748	1311	1049	874	749	1456	1092	874	728	624	1165	874	699	583	499

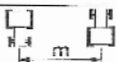
6.2 Seeds and slug pellets

Wheat (not dressed) 0,78 kg/l						Barley (cleaned, not dressed) 0,64 kg/l						Oats (not dressed) 0,48 kg/l					
Lever setting pos.																	
	12 km/h					12 km/h					12 km/h						
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14		
	13	110	82	66	55	47	35	28	21	17	15	42	31	25	21	18	
	14	145	109	87	72	62	53	40	32	27	23	63	47	38	32	27	
	15	200	150	120	100	86	77	57	46	38	33	92	69	55	46	39	
	16	230	173	138	115	99	103	77	62	52	44	112	84	67	56	48	
	17	275	206	165	138	118	133	100	80	67	57	140	105	84	70	60	
	18	333	250	200	167	143	162	121	97	81	69	185	139	111	93	79	
	19	375	281	225	188	161	200	150	120	100	86	202	151	121	101	86	
20	430	322	258	215	184	233	175	140	117	100	238	179	143	119	102		
21	467	350	280	233	200	267	200	160	133	114	283	212	170	142	121		
22	525	394	315	263	225	312	234	187	156	134	308	231	185	154	132		
23	545	409	327	273	234	347	260	208	173	149	358	269	215	179	154		
24	600	450	360	300	257	383	287	230	192	164	378	284	227	189	162		
25	638	479	383	319	274	410	308	246	205	176	428	321	257	214	184		
26	670	503	402	335	287	438	329	263	219	188	475	356	285	238	204		
27	700	525	420	350	300	467	350	280	233	200	533	400	320	267	229		

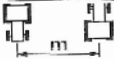
fwelz-c-d.xls

Rye (not dressed) 0,74 kg/l						White lupines 0,76 kg/l									
Lever setting pos.															
	12 km/h					9 km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
10						89	87	54	45	38					
11						133	100	80	66	57					
12						176	132	105	88	75					
13	75	56	45	38	32	221	165	132	110	95					
14	110	82	66	55	47	265	199	159	132	113					
15	158	119	95	79	68	300	232	185	154	132					
16	197	148	118	98	84	353	265	212	176	151					
17	238	179	143	119	102	396	297	238	198	170					
18	293	220	176	147	126	438	328	263	219	188					
19	325	244	195	163	139										
20	367	275	220	183	157										
21	407	305	244	203	174										
22	450	337	270	225	193										
23	492	369	295	246	211										
24	525	394	315	263	225										
25	558	419	335	279	239										
26	595	446	357	298	255										
27	627	470	378	313	269										

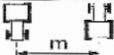
Tick beans (dressed) 0,83 kg/l	Yellow mustard 0,77 kg/l
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Lever setting pos.															
	9					6					8				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
3						9.8	7.4	5.9	4.9	4.2					
4						13.1	9.8	7.8	6.5	5.6	9.8	7.4	5.9	4.9	4.2
5						18.3	12.3	9.8	8.2	7.0	12.3	9.2	7.4	5.1	5.3
6						29.2	21.9	17.5	14.6	12.5	21.9	18.4	13.1	10.9	9.4
7	24	18	15	12	10	63.4	47.6	38.0	31.7	27.2	47.6	35.7	28.5	23.8	20.4
8	40	30	24	20	17	104.9	78.7	62.9	52.4	45.0	78.7	59.0	47.2	39.3	33.7
9	68	51	41	34	29										
10	111	83	67	55	48										
11	165	123	99	82	71										
12	218	163	131	109	93										
13	274	205	164	137	117										
14	328	246	197	164	141										
15	383	287	230	192	164										
16	438	328	263	219	188										

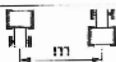
fackcr-d.xls

Lower setting pos.															
	12					15					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
7	32	24	19	16	14	26	19	15	13	11					
8	53	40	32	26	23	42	32	25	21	18					
9	89	67	54	45	38	72	54	43	36	31					
10	116	109	88	73	63	117	88	70	58	50					
11	217	162	130	108	93	173	130	104	87	74					
12	286	215	172	143	123	229	172	138	115	98					

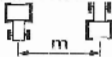
Rape 0,70 kg/l	Perennial Rye Grass 0,51 kg/l
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Lever setting pos.															
	6					12					7				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
4	3.0	2.3	1.8	1.5	1.3										
5	12.3	9.2	7.4	6.2	5.3	6.2	4.6	3.7	3.1	2.6					
6	22.7	17.0	13.6	11.3	9.7	11.3	8.5	6.8	5.7	4.9					
7	47.3	35.5	28.4	23.7	20.3	23.7	17.8	14.2	11.8	10.1					
8	68.7	51.5	41.2	34.3	29.4	34.3	25.8	20.6	17.2	14.7	22.6	17.0	13.6	11.3	9.7
9	101.0	75.7	60.5	50.5	43.3	50.5	37.9	30.3	25.2	21.6	38.4	28.8	23.0	19.2	16.4
10											62.6	47.0	37.6	31.3	26.8
11											92.9	69.7	55.7	46.5	39.8
12											122.9	92.2	73.7	61.5	52.7
13											154.5	115.9	92.7	77.2	66.2
14															

Oil radish 0,75 kg/l	White clover 0,84 kg/l	Lucerne 0,85 kg/l
--------------------------------	----------------------------------	-----------------------------

Lever setting pos.															
	8					9					5				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
1						8.0	4.5	3.6	3.0	2.5					
2						11.0	8.3	6.6	5.5	4.7					
3						16.0	13.0	10.0	8.0	7.0	11.6	8.7	7.0	5.8	5.0
4	11.0	8.2	6.6	5.5	4.7	22.0	17.0	13.0	11.0	9.0	17.2	12.9	10.3	8.6	7.4
5	13.7	10.3	8.2	6.9	5.9	28.0	21.0	17.0	14.0	12.0	23.0	17.2	13.8	11.5	9.9
6	18.5	12.4	9.9	8.2	7.1	45.0	33.0	27.0	22.0	19.0	39.2	29.4	23.5	19.6	16.8
7	38.7	29.0	23.2	19.3	16.6	58.0	43.0	35.0	29.0	25.0	84.8	63.6	50.9	42.4	36.3
8	84.0	48.0	38.4	32.0	27.4	89.0	67.0	53.0	44.0	38.0	152.5	114.4	91.6	76.3	65.4
9	108.5	81.4	65.1	54.3	46.5	128.0	96.0	76.0	64.0	55.0					
10	177.0	132.7	105.2	88.5	75.6										

foelre-d.xls

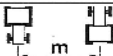
Autumn Turnips 0,74 kg/l						Winter bird rape 0,68 kg/l					Phacelia 0,59 kg/l				
Lever setting pos.															
	8,5 km/h					6 km/h					6 km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
1	4.0	3.0	2.4	2.0	1.7										
2	5.0	5.0	4.8	4.0	3.4	8.2	6.1	4.9	4.1	3.5					
3	14.0	11.0	8.0	7.0	6.0	12.3	9.2	7.4	6.1	5.3	9.8	7.4	5.9	4.9	4.2
4	18.0	13.0	10.0	9.0	8.0	16.4	12.3	9.8	8.2	7.0	13.1	9.8	7.9	6.6	5.8
5	29.0	22.0	18.0	15.0	13.0	20.5	15.3	12.3	10.2	8.8	18.4	12.3	9.8	8.2	7.0
6	47.0	35.0	28.0	23.0	20.0	24.6	18.4	14.7	12.3	10.5	19.7	14.8	11.8	9.8	8.4
7	65.0	49.0	39.0	32.0	28.0	57.7	43.2	34.6	28.8	24.7	46.2	34.7	27.7	23.1	19.8
8	97.0	72	58.0	48.0	42.0	85.4	71.5	57.2	47.7	40.9	76.4	57.3	45.9	38.2	32.8

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Slug Pellets

Mesuro!; Skipper; Spiess-Urania

0,75 kg/l

Lever setting pos.															
	6					10					12				
	km/h					km/h					km/h				
	6	8	10	12	14	6	8	10	12	14	6	8	10	12	14
5,5	4,2	3,1	2,5	2,1	1,8										
6,0	7,0	5,3	4,2	3,5	3,0	4,2	3,2	2,5	2,1	1,8	3,5	2,6	2,1	1,8	1,5
6,5	10,7	8,0	6,4	5,3	4,6	6,4	4,8	3,8	3,2	2,7	5,3	4,0	3,2	2,7	2,3
7,0	15,0	11,2	9,0	7,5	6,4	9,0	6,7	5,4	4,5	3,9	7,5	5,6	4,5	3,7	3,2

fmesur-d.xls



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