



PROTAN AG - Diamin[®]Basic trial
Organic fertigation on pepper

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Rossella Bortolaso
Adriano Altissimo

The **aim** of the trial is to confirm the Diamin Basic as good performing product to be used in fertigation in Organic Orticulture

Study Design:

Completely randomized block

Reps: 4 replications

6 plants/replication

Specie: Pepper F1, SARNO Esa Sem

Products: DiaminBasic, Siapton (as reference)

6 entry:

DiaminBasic 20 %
DiaminBasic 10 %
Siapton 20
No Fertigation 80
No Fertigation 90
solid fertilizer 100

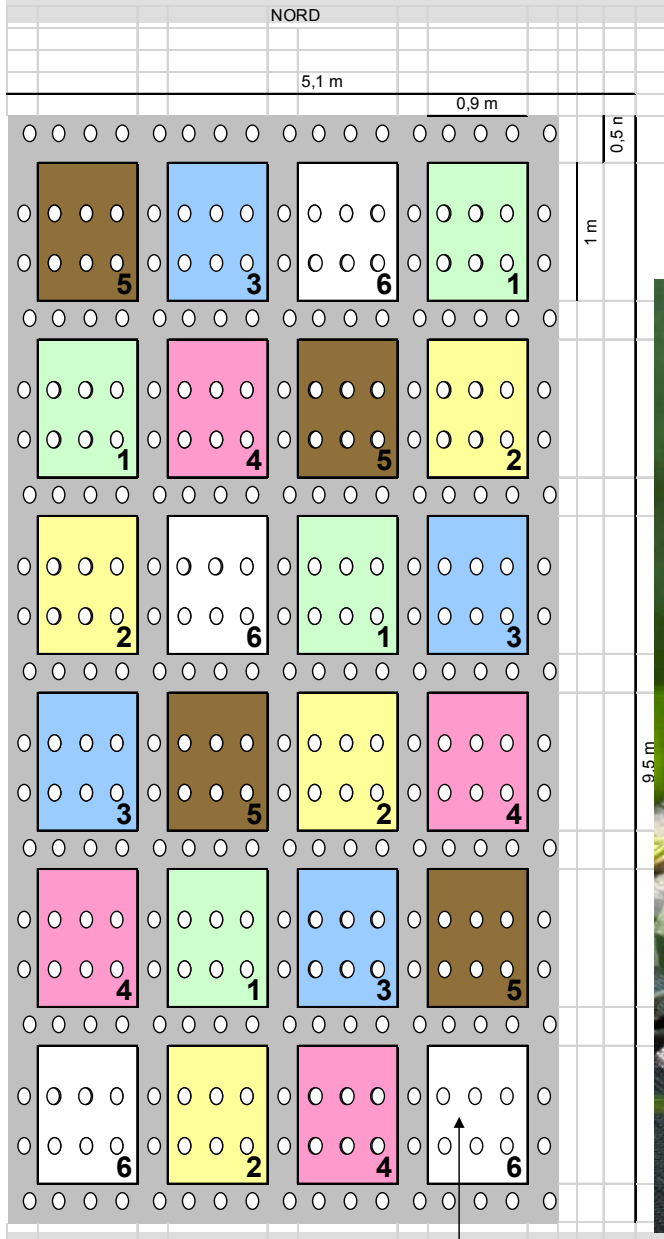


Description of the trial:

Plants have been grown applying before the transplant, an organic base dressing at different quantities: 100% for not fertigated entries, and 80% or 90% for entries where the fertigation was at the 20% – 10% of the total N demand. Solid Organic Fertilizer: Bioilsa 10 export, phosphate and potassium sulphate.

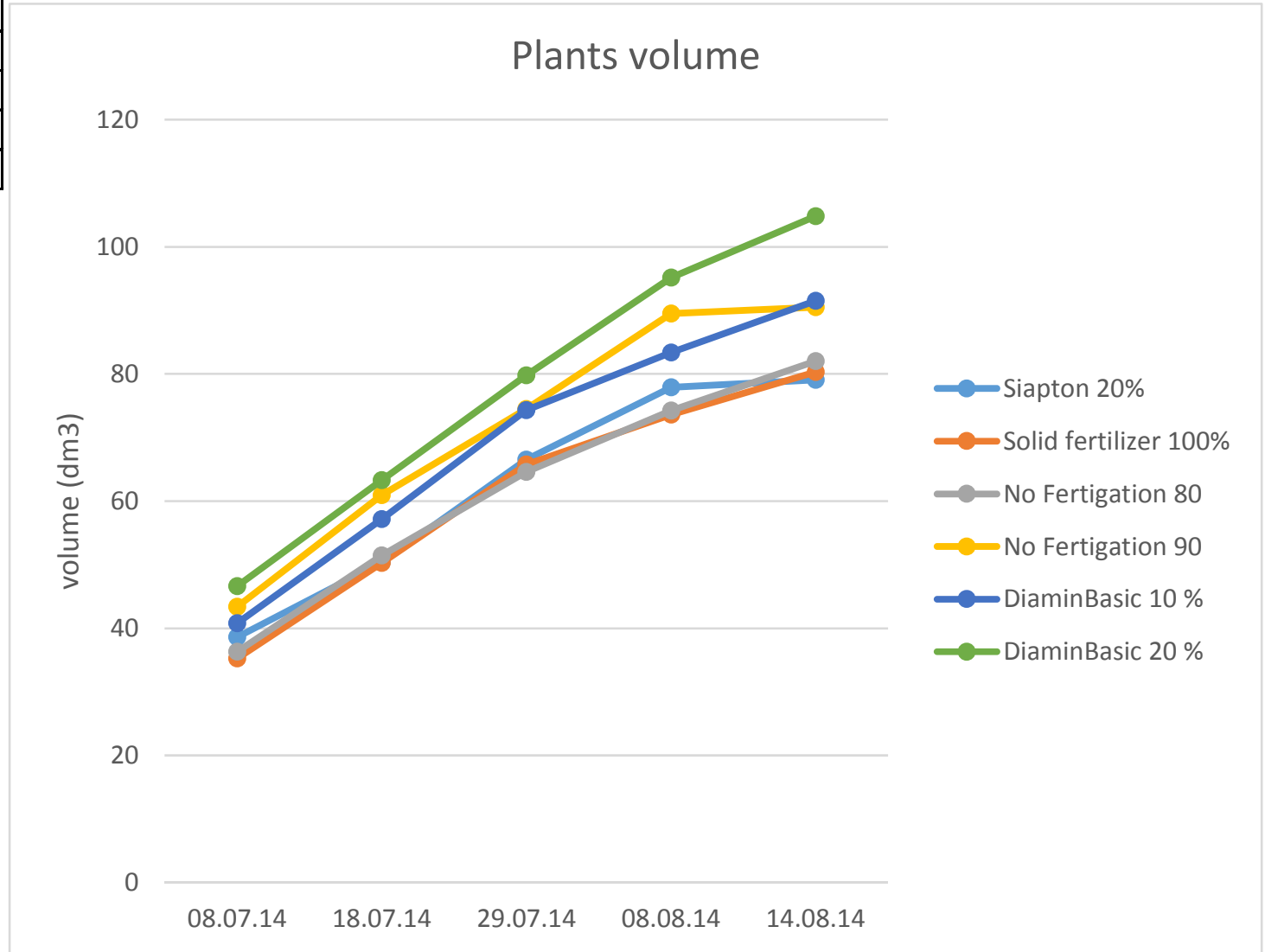
The fertigation has been done after 4 weeks from the transplanting, for 6 times, one per week. It has been applied a cover to avoid damages from hail.

Starting date 23.05.14, end of the trial 11.09.14

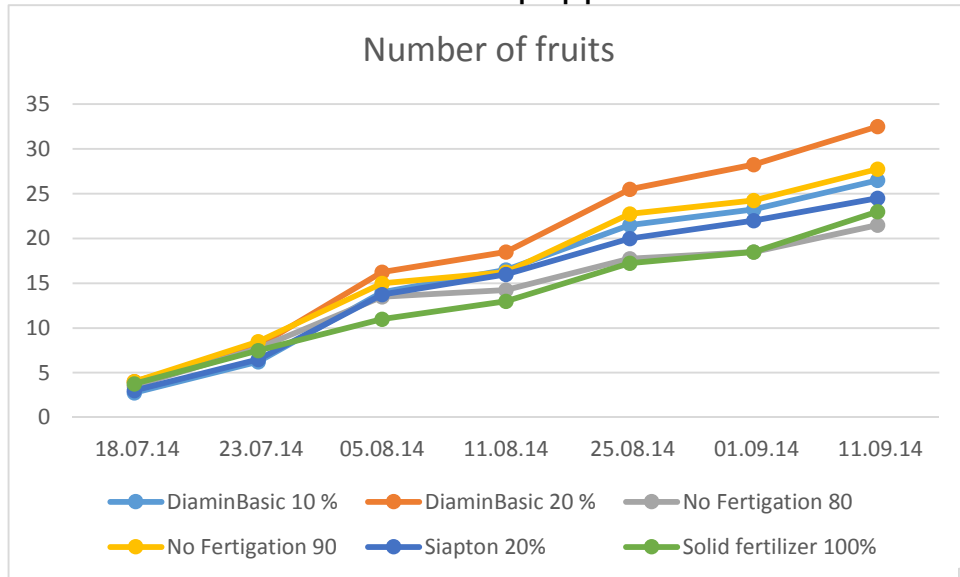


23.05.14	starting date
01.07.14	fertigation 1
11.07.14	fertigation 2
18.07.14	fertigation 3
24.7.14	fertigation 4
31.7.14	fertigation 5
07.08.14	fertigation 6

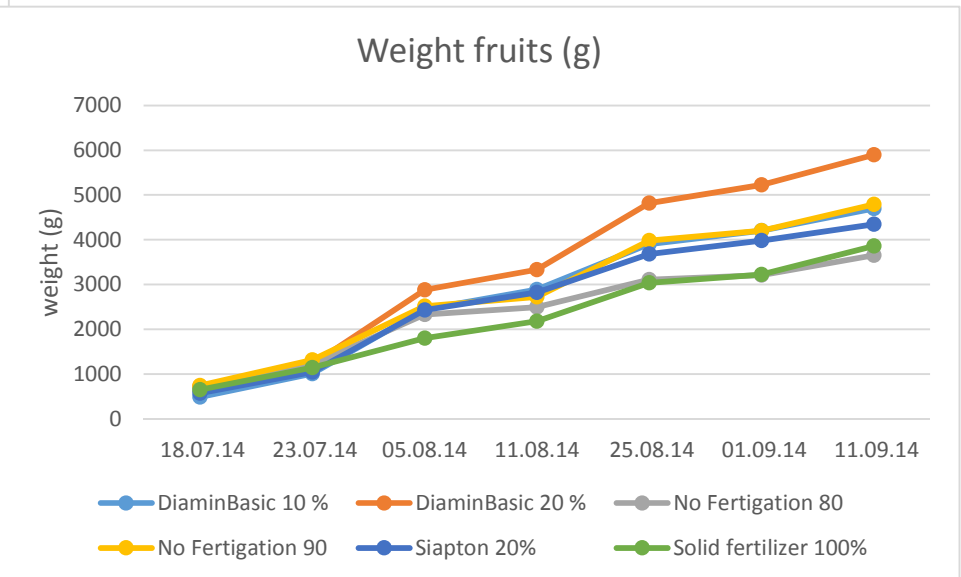
Following the volume of plants we can see that DiaminBasic 20% comes up



From 18.07.14 till 25.09.14 peppers have been harvested



Also at production level the Diamin Basic 20% comes up





1	No fertigation 100%
2	No Fertigation 90%
3	No Fertigation 80%
4	Siapton 20%
5	DiaminBasic 10 %
6	DiaminBasic 20 %



1	No fertigation 100%
2	No Fertigation 90%
3	No Fertigation 80%
4	Siapton 20%
5	DiaminBasic 10 %
6	DiaminBasic 20 %

entry	n fruit <150g	
DiaminBasic 10 %	5	****
Siapton 20%	6	****
DiaminBasic 20 %	8	****
No Fertigation 90	8	****
No Fertigation 80	8	****
Solid fertilizer 100%	9	****

entry	n fruit 151-200 g		
No Fertigation 80	8	****	
Solid fertilizer 100%	11	****	****
Siapton 20%	12	****	****
No Fertigation 90	13	****	****
DiaminBasic 20 %	14	****	****
DiaminBasic 10 %	15		****

entry	n fruit 201-250 g		
Solid fertilizer 100%	3	****	
No Fertigation 80	5	****	****
DiaminBasic 10 %	5	****	****
Siapton 20%	6	****	****
No Fertigation 90	6	****	****
DiaminBasic 20 %	10		****

entry	n fruit > 250 g	
No Fertigation 80	0	****
No Fertigation 90	1	****
Siapton 20%	1	****
Solid fertilizer 100%	1	****
DiaminBasic 20 %	1	****
DiaminBasic 10 %	1	****

entry	weight fruit (g) < 150g	
DiaminBasic 10 %	661,0	****
Siapton 20%	808,1	****
DiaminBasic 20 %	918,7	****
No Fertigation 90	996,5	****
No Fertigation 80	1027,3	****
Solid fertilizer 100%	1052,2	****

entry	weight fruit (g) 151-200 g	
No Fertigation 80	1456,8	****
Solid fertilizer 100%	1853,8	****
Siapton 20%	2031,8	****
No Fertigation 90	2296,2	****
DiaminBasic 20 %	2425,7	****
DiaminBasic 10 %	2623,2	****

entry	weight fruit (g) 201-250 g		
Solid fertilizer 100%	746,5	****	
DiaminBasic 10 %	1089,0	****	****
No Fertigation 80	1098,0	****	****
No Fertigation 90	1291,6	****	****
Siapton 20%	1301,8	****	****
DiaminBasic 20 %	2198,3		****

entry	weight fruit (g) >250 g	
No Fertigation 80	66,8	****
Siapton 20%	202,4	****
Solid fertilizer 100%	203,2	****
No Fertigation 90	203,6	****
DiaminBasic 10 %	321,8	****
DiaminBasic 20 %	354,1	****

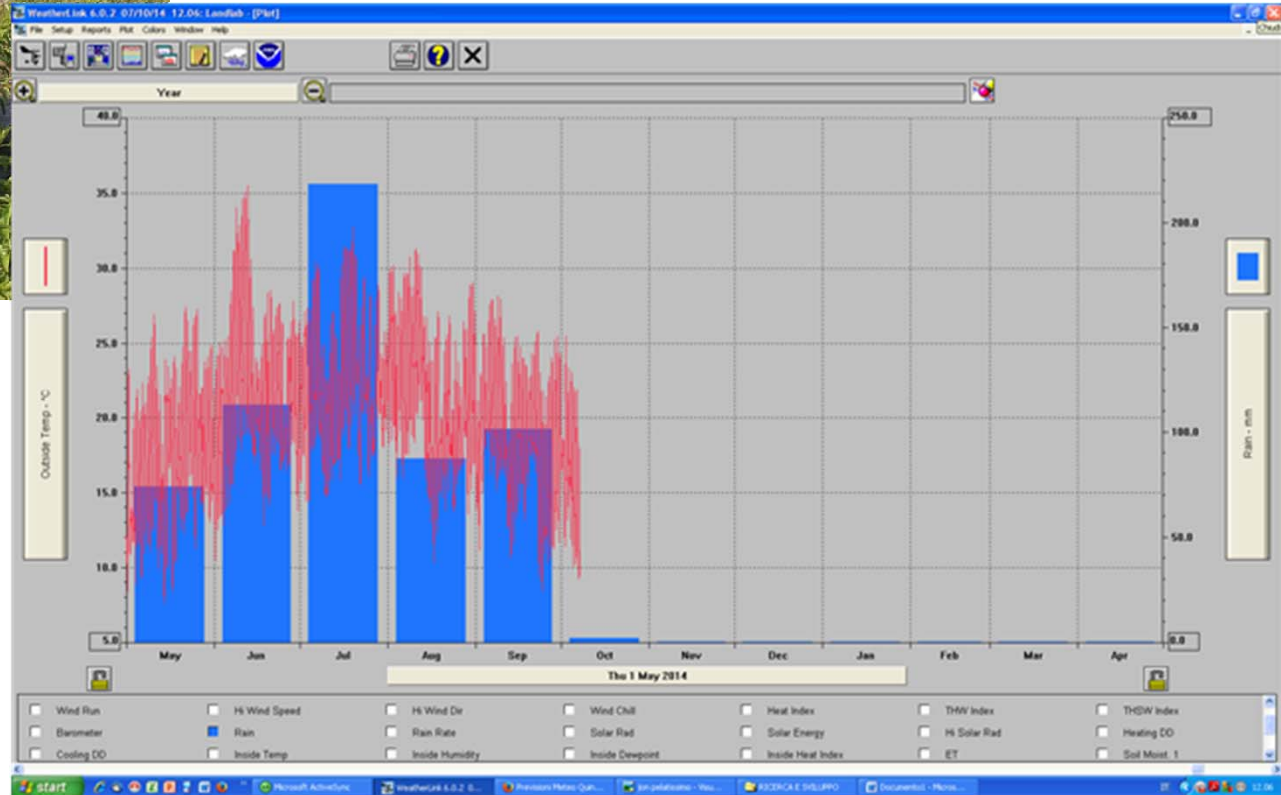
The DiaminBasic 20% is the best entry for all the classes of pepper except for the non-commercial class (VERY GOOD!)

entry	weight fruits (g) till 11/09		
No Fertigation 80	4399	****	
Solid fertilizer 100%	4480	****	
Siapton 20%	5046	****	****
DiaminBasic 10 %	5111	****	****
No Fertigation 90	5353	****	****
DiaminBasic 20 %	6617		****

DiaminBasic 20% is the best entry, and removing the entry «fertigation 90» it is also statistically different from all the others!

entry	weight fruits (g) till 11/09		
No Fertigation 80	4399	****	
Solid fertilizer 100%	4480	****	
Siapton 20%	5046	****	
DiaminBasic 10 %	5111	****	
DiaminBasic 20 %	6617		****

11 September to be considered the end of the trial: more than 1 month without fertigation, and no more season for pepper!but... Hail!



Temperatures and rain during the trial (per month)

The DiaminBasic 20% is confirmed to be the best entry.

Also the lower level of DiaminBasic (10%) shown good results, better comparing also to Siapton at 20%