



PRODUCTION YIELDS (KG/HA) IN ROMANIAN ECOLOGICAL AGRICULTURE

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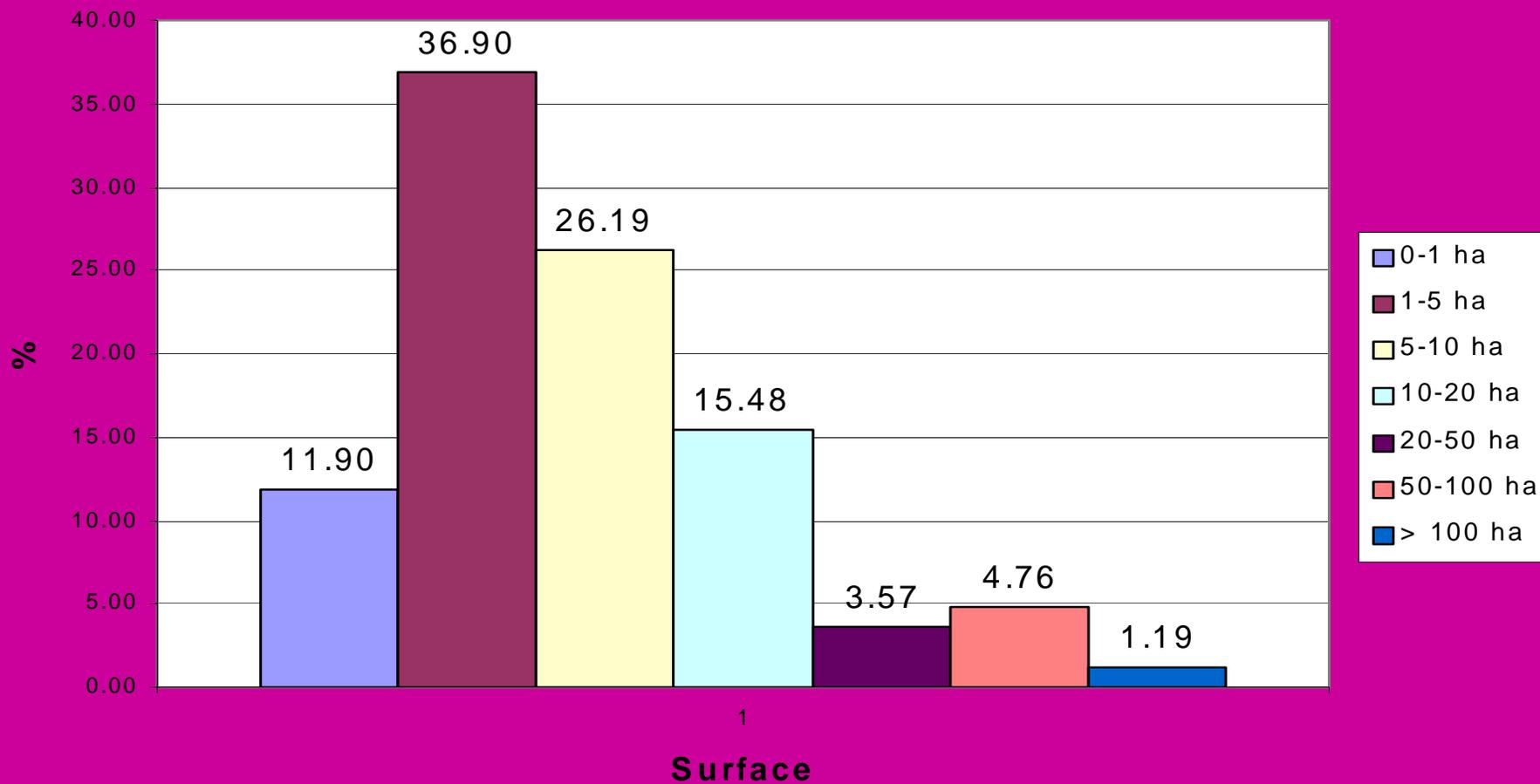
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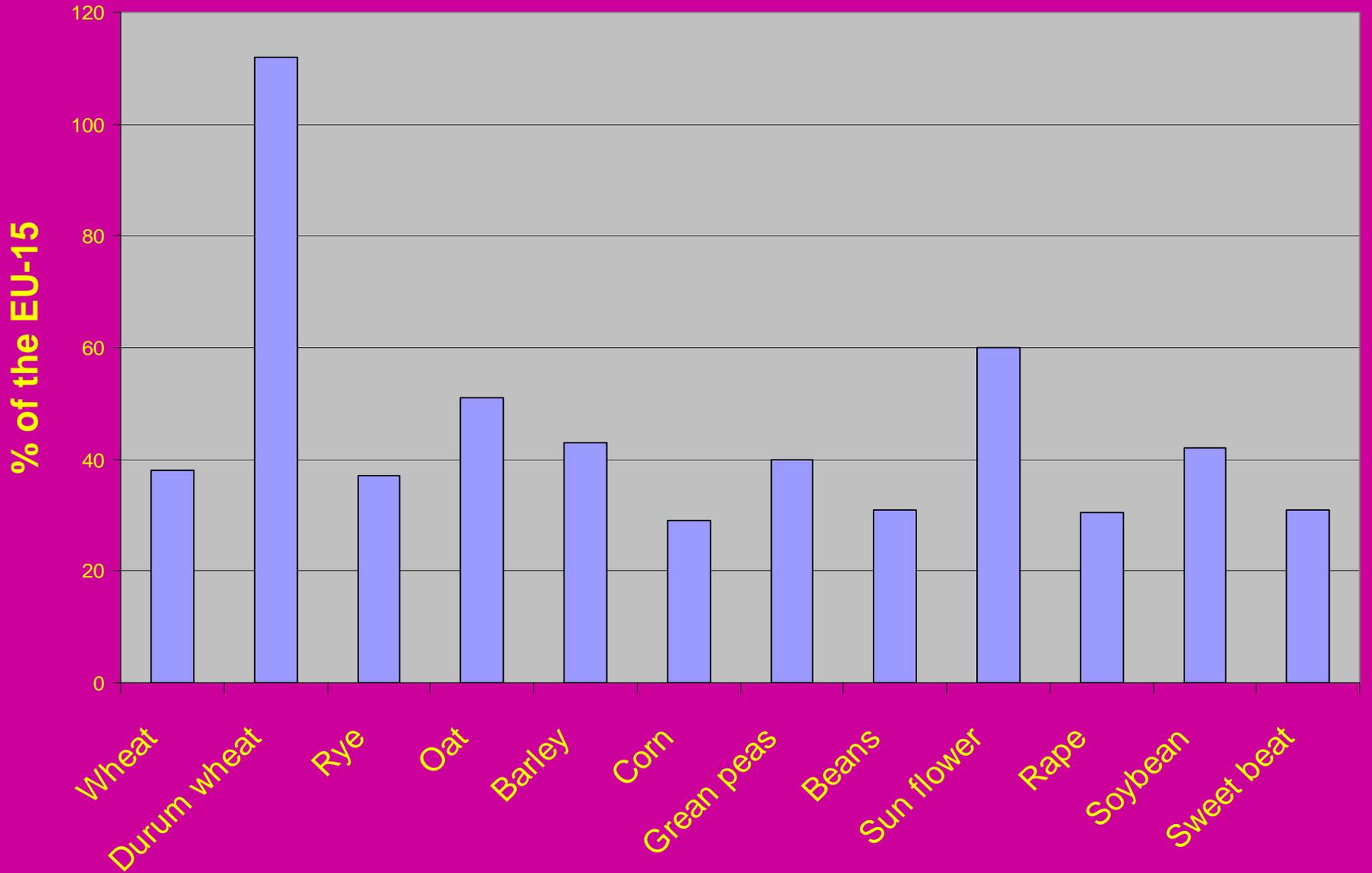
MATERIAL AND METHODS

- **100 questionnaires were administered to BIOTERRA -association members, 93 were considered valid**
- **the questions concern the structure and the size of cultivated surfaces and also the obtained yields**
- **questionnaires were aleatory distributed**

Fig. 1: Distribution of holdings by size (ha)



The Romanian yields compared with EU yields



Comparative yields for wheat

In 2003 were obtained 2340 kg/ha

Yields/YEAR (kilos/ha)	1990	1991	1992	1993	1994	1995	1996
Private sector	2837	2333	2015	2189	2427	2957	1569
Total agriculture	3212	2507	2188	2321	2535	3082	1760

Yields/YEAR (kilos/ha)	1997	1998	1999	2000	2001	2002	2003
Private sector	2795	2437	2656	2172	3016	1917	1425
Total agriculture	2964	2561	2776	2280	3034	1923	1428

One-Sample Test

	Test Value = 2340					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Wheat private	-.008	13	.994	-1.07	-286.45	284.31
Wheat total	.917	13	.376	129.36	-175.39	434.11

Comparative yields for oat

In 2003 were obtained 1640 kg/ha

Yields/YEAR (kilos/ha)	1990	1991	1992	1993	1994	1995	1996
Private sector	1375	1167	1479	1370	1516	1685	1233
Total agriculture	1622	1230	1671	1519	1487	1693	1242

Yields/YEAR (kilos/ha)	1997	1998	1999	2000	2001	2002	2003
Private sector	1506	1591	1578	1057	1750	1375	1336
Total agriculture	1485	1588	1570	1050	1743	1368	1334

One-Sample Test

	Test Value = 1640					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Oat private	-4.024	13	.001	-210.14	-322.97	-97.32
Oat total	-3.123	13	.008	-168.43	-284.95	-51.91

Comparative yields for barley

In 2003 were obtained **1940** kg/ha

Yields/YEAR (kilos/ha)	1990	1991	1992	1993	1994	1995	1996
Private sector	2692	2551	2246	2099	2563	2809	1839
Total agriculture	3577	2899	2670	2437	2718	3122	2149

Yields/YEAR (kilos/ha)	1997	1998	1999	2000	2001	2002	2003
Private sector	2614	2205	2275	1876	2897	2011	1643
Total agriculture	3016	2394	2451	2105	2988	2005	1641

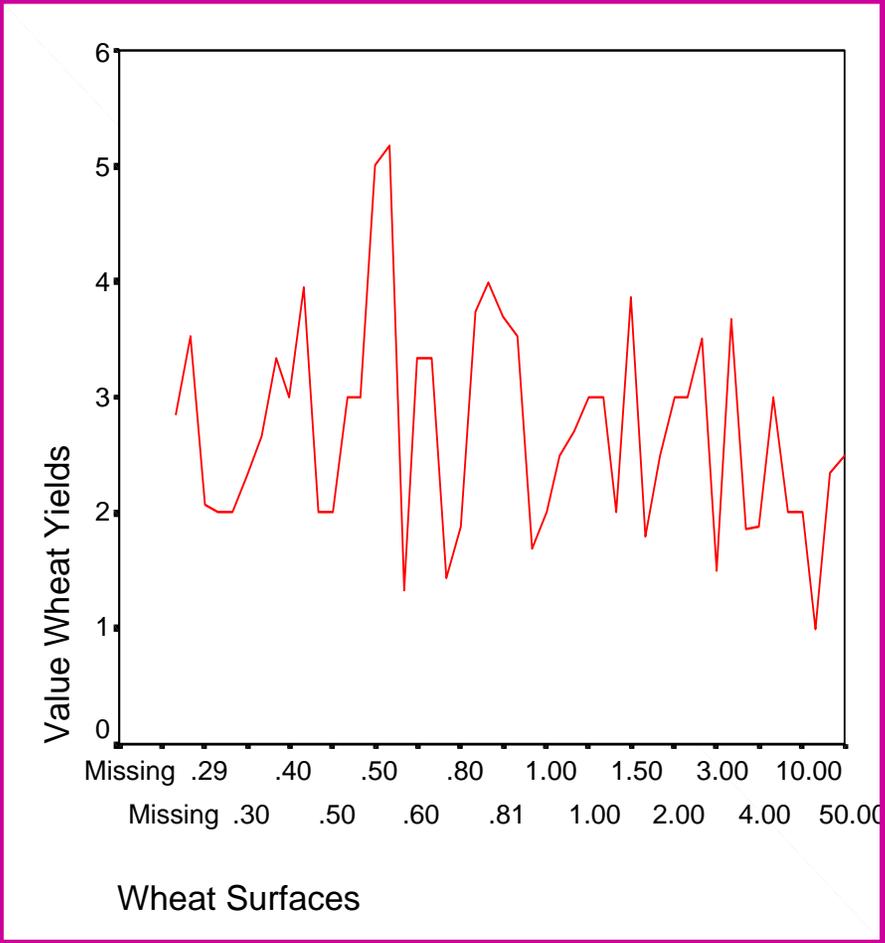
One-Sample Test

	Test Value = 1940					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Barley priva	3.552	13	.004	368.57	144.42	592.72
Barley total	4.663	13	.000	643.71	345.48	941.95

Comparative results

Organic 2003	Conv 2003	Multi- annual	Organic 2003	Conv 2003	Multi- annual
Wheat	>	=	Sun flower	>	>
Rye	>	=	Potatoes	=	>
Oat	>	>	Fodder corn	<	<
Corn	>	>	Sugar beat	>	>
Barley	>	<	Meat	<	<

Correlation between surfaces and yields for wheat



Correlations

	Wheat Yield	Wheat Surfaces
Wheat Yield	1.000	-.177
Pearson Correlation		
Sig. (2-tailed)	.	.229
N	48	48
Wheat Surfaces	-.177	1.000
Pearson Correlation		
Sig. (2-tailed)	.229	.
N	48	48

CONCLUSIONS

- **1. Unlike to western agriculture, we cannot assess for Romania that the yields (kg/ha) are lower for the ecological agriculture than for conventional agriculture**
- **2. The production yield do not seem to be influenced by the size of cultivated surface**
- **3. From the points no. 1 and 2 results that Romanian agriculture is less technologies intensive, the techniques of intensive agriculture beeing used on a small scale.**
- **4. Taking in account also the market the Ecological Agriculture seems to be a valid alternative -in Romania- for conventional agriculture**



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**THANK YOU FOR YOUR
ATTENTION**