

Farm Management Module of the EMTC-Tool

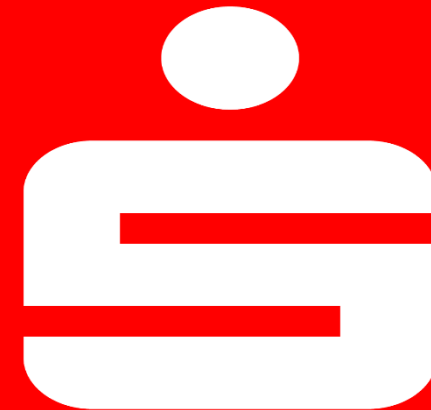


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Швейцарское управление по развитию и сотрудничеству



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Excepted Benefits of the Module: “Farm Management” of the EMTC- Tool

Something is missing here - **the baseline**: how do we know that it is exactly what the farmers need

1. Optimise the seeding process for better yield
2. Reduce the cost of inputs for farmers – e.g. fertilizers
3. Increase the yield per hectare for various crops
4. Provide the data for better funding opportunities
5. Provide the tools for better monitoring of risks
6. Ensure the reliable statistics for macro-level planning and forecasting
7. Ensure the compliance with the EU regulations in the agricultural area
8. Provide the tools for more efficient subsidies programs

Field trials by young Moldovan farmers - how to meet the challenges of increasing weather extremes in result of climate change – not replacing the missing extension service but a positive sign of hope



Orhei region,

- Technological lanes,
- Pneumatic seed drill,
- low seed rates



Cahul region,

- increased row spacing,
- mechanical seeder,
- very low seed rates,



Region Anenii Noi,

- Old mechanical seeder,
- Extremely low seed rates,



Dondușeni region,

- pneumatic precision seed drill,
- Balanced seed density,

Base line information on the Moldovan agriculture in result of “rapid” economic farm business analyses 2022

- In 30 days 15 farmers / farms involved, managed by women - 3, by people younger than 40 years – 5, and all other by farmers over 56; If one excludes the young people, of the other managers just 2 have a successor
- The farm size the farm sizes involved ranged from , 10 ha (4, including all women), over 100 - 1,000 ha (9) and over 1,000 ha (2/ 36 & 56 years old)
- Yielding: physically & financially none of the farms is below the level of the official Moldovan average
- According to the EU understanding of CAP principles none of the farms: a) meets record keeping requirements; b) keeps a long term crop rotation; c) uses fertilizers (mineral & organic or both combined) according to the principle of balance equalization of crop nutrients withdrawal & re-delivery; d) has invested in agricultural buildings, e.g., neither for grain storage nor in alternative energies or animal husbandry



Agriculture farm land market identified as (major) investment barrier

Land lease periods of three years or less; as usual in Moldova contradict all socio economic business rules, as

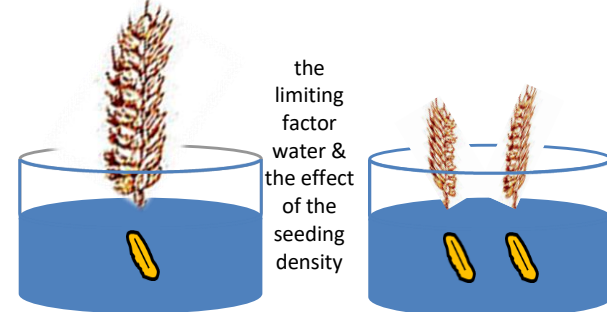
- keeping crop rotations, lasting up to 6 years
- balance fertilizing particular in the use of “P” and “K”, which work 3 year and longer
- investments, which are getting depreciated fiscally in between 8 to 15 or more years

Land lease are costs to be activated as fix costs while buying land for investments can not be activated as investment costs.

Guarantied land lease contracts are required by banks for minimum loan security



An farm management & extension tool / module for farm resilience both business as well as for climate change by optimising inter-alia seed and water use



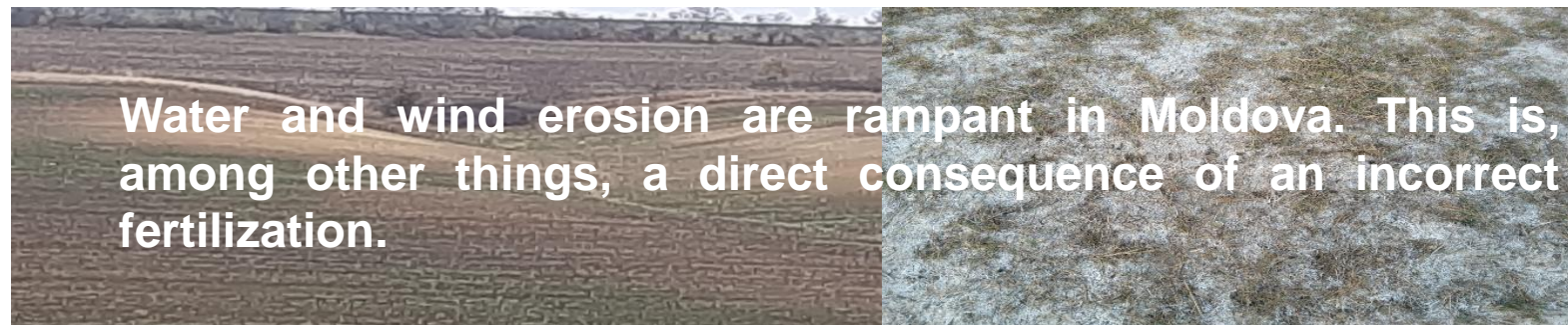
Rata de germinare **90 %**

Numărul de plante per m ²	150	200	250	300	350	400	450	500	550	
	în grame				kg / ha					
24	40	53	67	80	93	107	120	133	147	
28	47	62	78	93	109	124	140	156	171	
32	53	71	89	107	124	142	160	178	196	
36	60	80	100	120	140	160	180	200	220	
Masa la 1000 de boabe	67	89	111	133	156	178	200	222	244	Norma de semănat în kg / ha
40	73	98	122	147	171	196	220	244	269	
44	80	107	133	160	187	213	240	267	293	
48	87	116	144	173	202	231	260	289	318	
52	93	124	156	187	218	249	280	311	342	
56	100	133	167	200	233	267	300	333	367	
60										
	Secară de toamnă									
			Orz de toamnă							
			Triticale de toamnă							
			Orz de primăvară							
			Ovăz							
				Grâu de toamnă						
				Grâu de primăvară						

Numărul de plante per m ²	150	200	250	300	350	400	450	500	550
Numărul de spice per m ² depinde de gradul de înfrățire									
Numărul mediu de frați per plantă	spice per m ²								
2,00	300	400	500	600	700	800	900	1000	1100
3,00	450	600	750	900	1050	1200	1350	1500	1650
4,00	600	800	1000	1200	1400	1600	1800	2000	2200

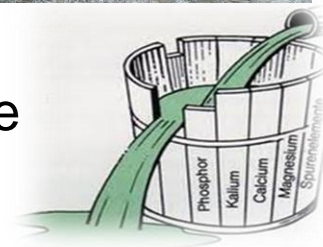
450 - 550 mm precipitații anuale; numărul optim este de la 500 până la 600 spice per m²; sau 5.000.000 spice per ha

Farm management tool - environmental balanced fertilisation to keep inter-alia soil fertility



Water and wind erosion are rampant in Moldova. This is, among other things, a direct consequence of an incorrect fertilization.

The nutrients which are removed from the soil with the harvest should be replaced in minimum !



	Target yield fresh dt / ha	Yield Corridor ¹ dt / ha fresh matter		Comment	Yield in dry matter dt / ha	nd of crop "N" kg / ha	available "P2O5" kg / ha	nutrient in kg "K2O" kg / ha	active matter "MgO" kg / ha	Total field demand of nutrients in tons active matter	"N" ton	"P2O5" ton	"K2O" ton	"MgO" ton
		from	to							ha				
Alfalfa or Lucerne		80	800	max 5 cuts	0	0	0	0	0		0,0	0,0	0,0	0,00
Buckwheat		5	35		0	0	0	0	0		0,0	0,0	0,0	0,00
Corn		25	120		0	0	0	0	0		0,0	0,0	0,0	0,00
Corn for silage		150	550	5% dry matter	0	0	0	0	0		0,0	0,0	0,0	0,00
Hard spring wheat		15	60		0	0	0	0	0		0,0	0,0	0,0	0,00
Many years field grass		100	1370	2% dry matter	0	0	0	0	0		0,0	0,0	0,0	0,00
Oats		15	75		0	0	0	0	0		0,0	0,0	0,0	0,00
Peas		15	56		0	0	0	0	0		0,0	0,0	0,0	0,00
Potatoes		45	550		0	0	0	0	0		0,0	0,0	0,0	0,00
Soya		8	40		0	0	0	0	0		0,0	0,0	0,0	0,00
Spring barley (brewery b		15	50		0	0	0	0	0		0,0	0,0	0,0	0,00
Spring barley (fodder)		10	65		0	0	0	0	0		0,0	0,0	0,0	0,00
Spring rapeseed		5	30		0	0	0	0	0		0,0	0,0	0,0	0,00
Spring wheat (fodder)		15	65		0	0	0	0	0		0,0	0,0	0,0	0,00
Sugar beets				depending on type of										
		120	750	beets	0	0	0	0	0		0,0	0,0	0,0	0,00
Sunflower		5	35		0	0	0	0	0		0,0	0,0	0,0	0,00
Triticale		10	95		0	0	0	0	0		0,0	0,0	0,0	0,00
Winter barley (fodder)		15	80		0	0	0	0	0		0,0	0,0	0,0	0,00
Winter rapeseed		10	45		0	0	0	0	0		0,0	0,0	0,0	0,00
Winter rye		10	85		0	0	0	0	0		0,0	0,0	0,0	0,00
Winter wheat		15	110		0	0	0	0	0		0,0	0,0	0,0	0,00
										0,0	0,0	0,0	0,0	0,00

Executive summary & recommendati ons

The summarising results of the farm (rapid) farm business analyses are:

- The results are not significant but are highly probable due to “random sampling” – need to be continued for business as well policy and support development
- The Moldovan agriculture today is challenged by a generation change & shortage of skilled workers, maybe due to “full employment”
- All farms analyzed are not profitable but (partly) highly monetary liquid
- The business target of medium-sized farms without a successor is often maximizing subsidies not profits

It is highly recommendable, since the agricultural sector of Moldova is of great importance for the country and its socio-economic development, as well as for other overarching perspectives such as the environment, this activity of exemplary coordinated cooperation between local and donor organizations should be intensively pursued

