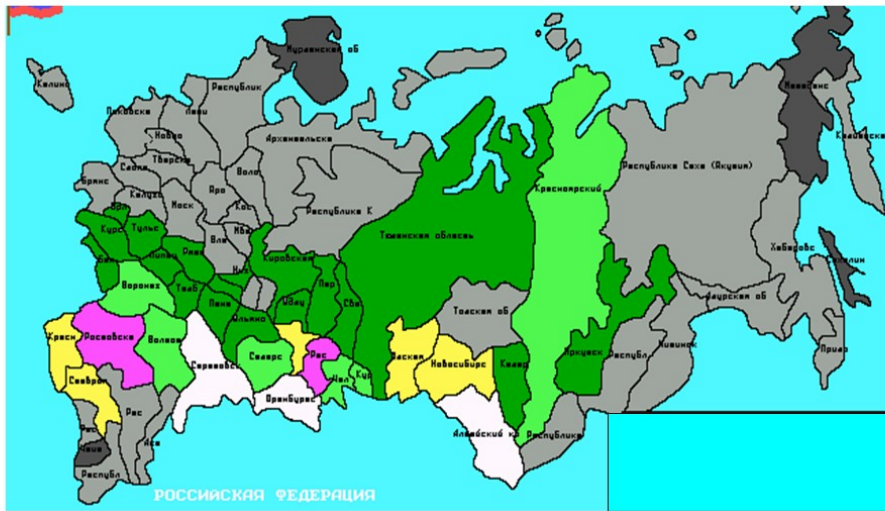


### Regions of Russian Federation



## Main Indices of Agricultural production of Russia (1991, 1997-2005)

Indices	1991	1997	1998	1999	2000	2001	2002	2003	2004	2005
Sown area, Mha including under grain and grain-leguminous	115,5	96,6	91,66	88,3	85,4	84,7	84,58	79,6	78,76	77,48
Mineral fertilizer used, mln.t including per 1 ha, t/ha	61,8	53,6	50,7	46,6	45,6	47,2	47,47	42,2	43,75	43,79
Total fertilized area, %	10,1	1,6	1,3	1,1	1,36	1,35	1,48	1,36	1,52	1,53
Manure used, mln. t, including per 1 ha, t/ha	89	18	16	15	19	16	17	17	19,4	19,4
Total fertilized area, %	66	27	24	24	27	27	26	27	27	27
Pesticides used, thousand t	347	87,2	72,1	69,1	66,0	60,0	60,64	59,94	53,2	49,87
Total treated area, %	3,5	1,0	0,9	0,9	0,9	0,8	0,7	0,76	0,68	0,64
Average yield of grain, t/ha	7,4	2,3	2,4	2,4	2,9	2,7	2,7	2,6	2,4	2,4
Gross grain output, mln.t	101,5	36,1	28,1	28,5	25,2	28,7	30,9	24,4	25,0	25,9
Average yield of grain, t/ha	74,6	35,5	27,4	25,75	32,66	38,3	36,4	35	42,9	45,3
Gross grain output, mln.t	1,5	1,65	0,94	1,17	1,44	1,8	19,6	17,8	18,8	18,5
	89,1	88,55	47,56	54,71	65,51	82,5	86,6	67,2	78,1	78,2



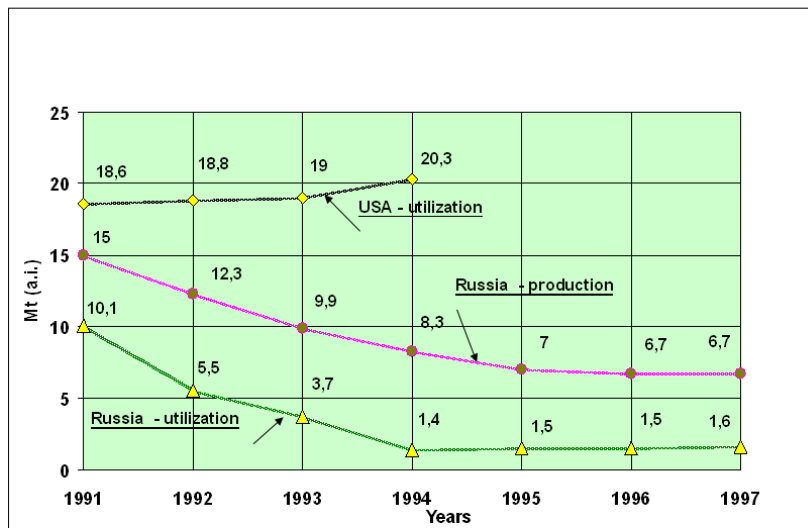
### THE DIFFERENTIATION OF PROVISION WITH FARM-RESOURCES AND TECHNIQUE, ALSO THE AVERAGE, LEVEL OF PROFITABILITY IN PRIORITY REGIONS OF RUSSIA

Farm-resources, Technique, Economy Indices	Number of Priority Regions*	Farm-resources Used in Priority Regions, % of total amount
Mineral Fertilizer	9	52
Machines for Mineral Fertilizer Application	20	40
Chemicals for Plants Protection, including:		
-diseases control chemicals	5	70
-pest control chemicals	5	63
Machines for Chemicals Application	10	40
Diesel Fuels, Lubricants	12	50
Tractors	15	44
Grain Harvesters	15	53
Forage Harvesters	15	47
Sugar-beet Harvesters	10	81
Average Gross output of Farm-products per 1 hectare, \$	16	200 and above
	18	130...200
Profitable Farm-producers, numbers	15	(5672 numb.) 58
Level of profitability on all activity without the State subsidies and compensation	8	10 and above
	8	3 and above

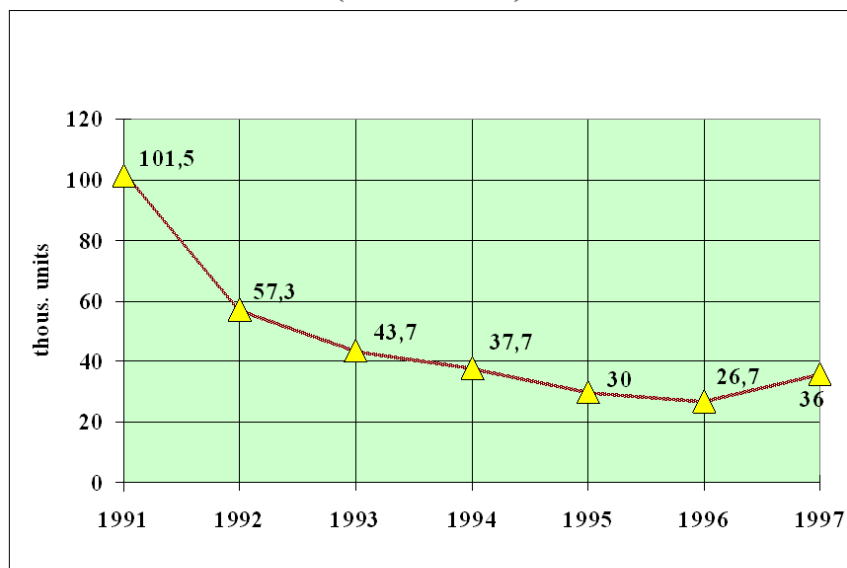
\*) Total number of regions in Russia – 89 but about 45 regions with developed Agrarian Sector



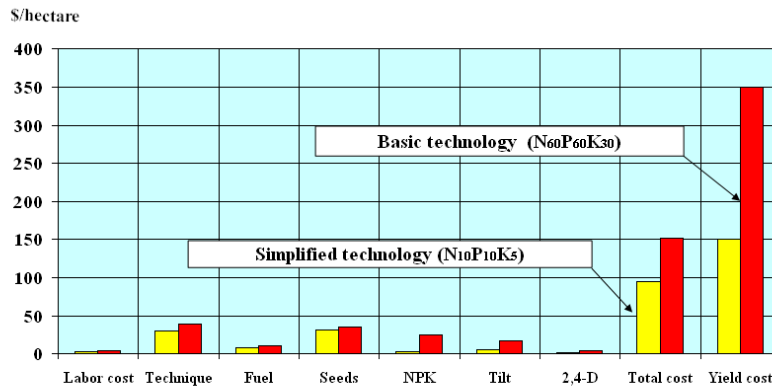
## Production and utilization of fertilizers in Russia agriculture and USA agriculture



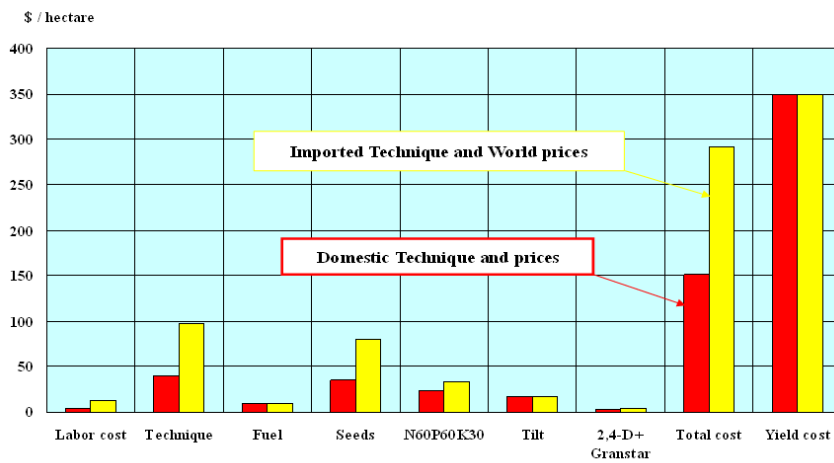
## Pesticides sales to Russia agriculture (1991-1997)



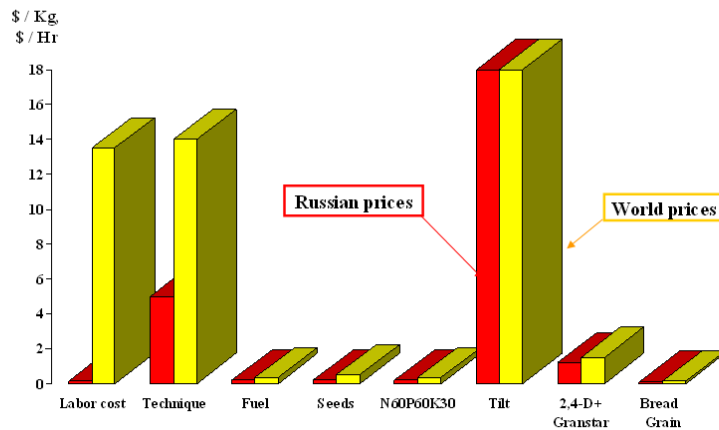
**Yield of Bread wheat on Simplified (1,5 t/hectare) and Basic (3,5 t/hectare) technologies also Total expenses and Yield cost of Bread grain (2000-2003)**



**Total expenses for Bread wheat producing on Basic Technology (3,5 t/hectare) with use of Domestic and Foreign Technique (2000-2003)**



### Domestic and Foreign prices on Labor, Technique, Technological resources and Bread Grain (2000-2003)



← / ≡ ⇒

### THE SPECIFIC CONSUMPTION OF DIESEL FUEL IN TECHNOLOGIES FOR FARM CROPS PRODUCTION (l / hectare)

FARM CROPS	USA	RUSSIA
Winter Wheat	30,9... 43,9	71,1... 96,4
Corn for Grain	74... 88	161,5... 217
Corn for Silage	52,4... 81,3	156,8... 206,1
Oat	30,9	60,6... 101,6
Barley	30,9	56,4... 101,6

\*) Data of VIM (Drincha V.M.)

← / ≡ ⇒

**Solvency of Russia Agricultural Enterprises in 2005  
(billion. roubles)**

<b>Credit debts</b>	<b>438,2</b>
<b>Credit long term debts</b>	<b>172,8</b>
<b>Takings from agricultural products realization</b>	<b>492</b>
<b>Discharge debts</b>	<b>95,4</b>
<b>Profit before taxation without subsidies from budget</b>	<b>9255</b>
<b>Level of profitableness of total production -7,6%, without subsidies -2%</b>	
<b>Total expenditure for basic agricultural production</b>	<b>574,9</b>

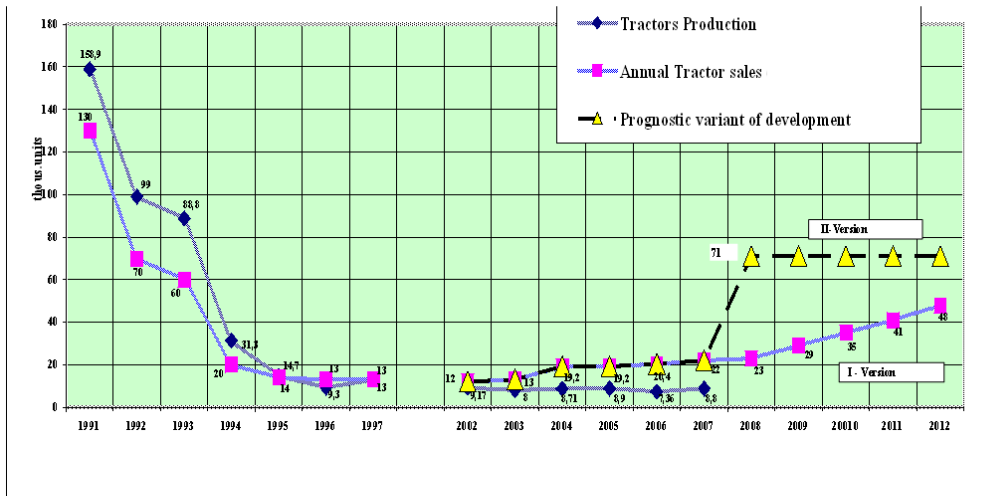
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**About 40 mln. ha of arable land in Russia are not used now**

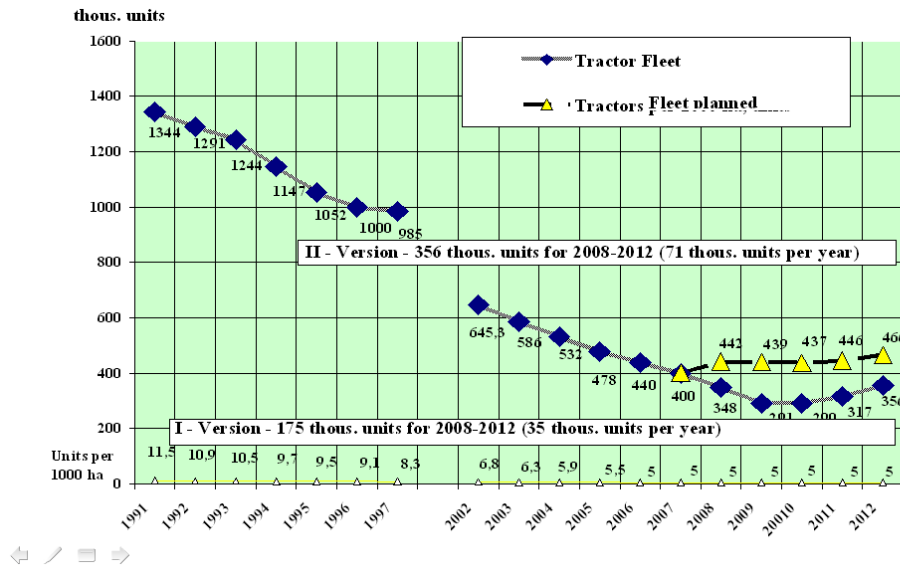


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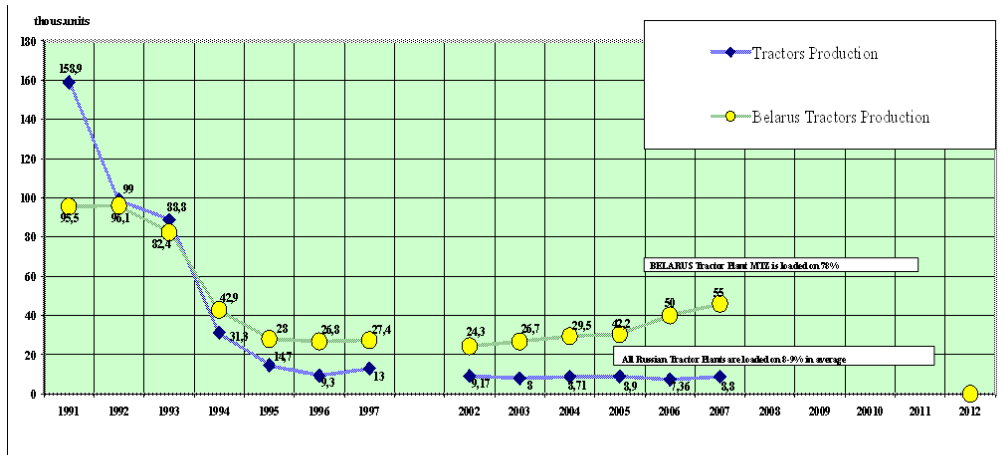
## Annual Tractors Production and Sales in Russia during 1991-2007 and two variants of its increasing in 2008-2012



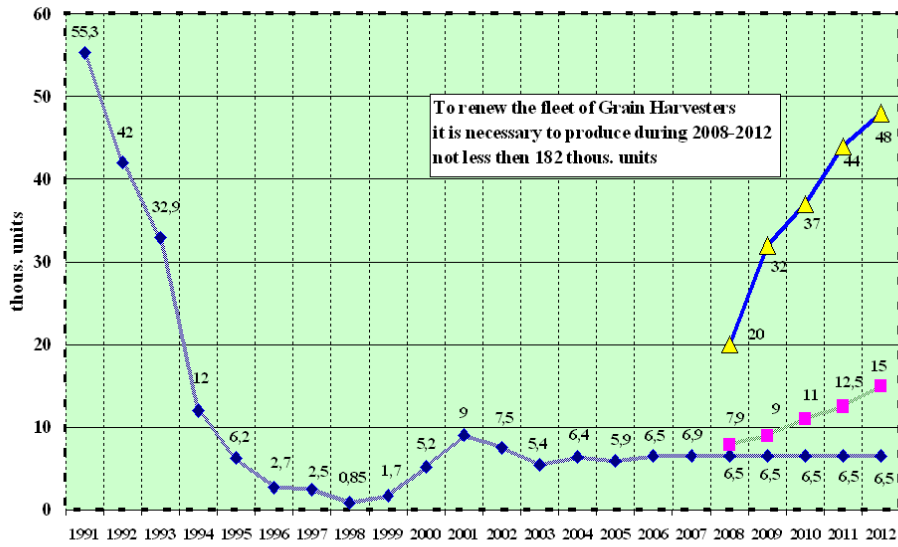
## Russia Agriculture Tractor Fleet decreasing for 1991-2007 and conditions of its stabilization on the level of 2006



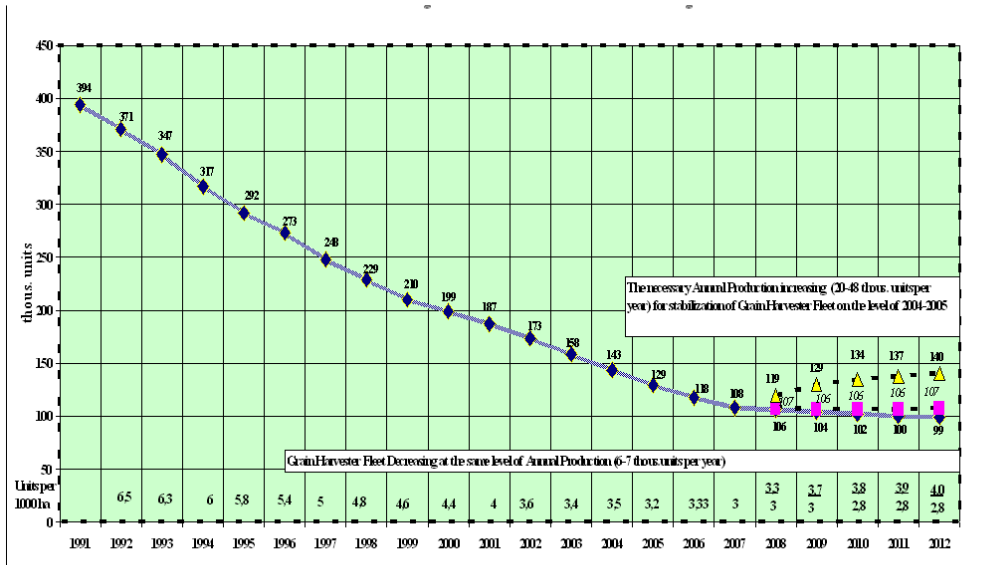
## Tractors Production and Sales in Russia and Belarus during 1991-2007



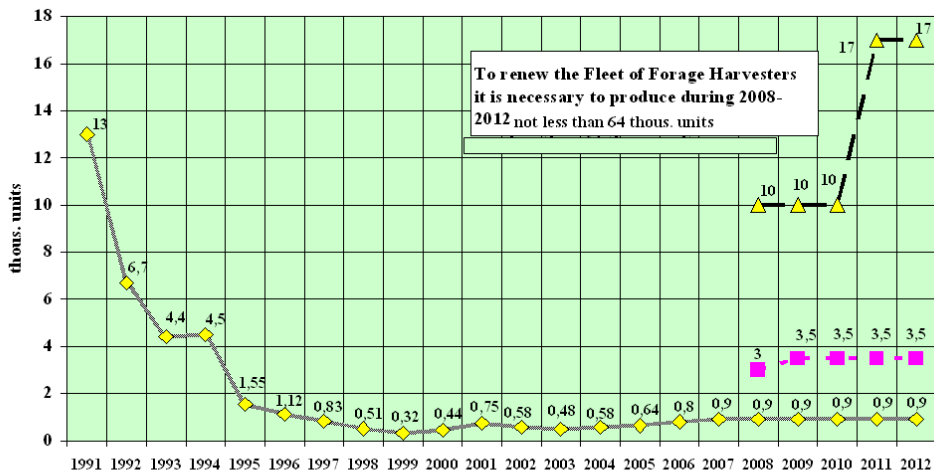
## Grain Harvester Annual Production and the necessary its increasing



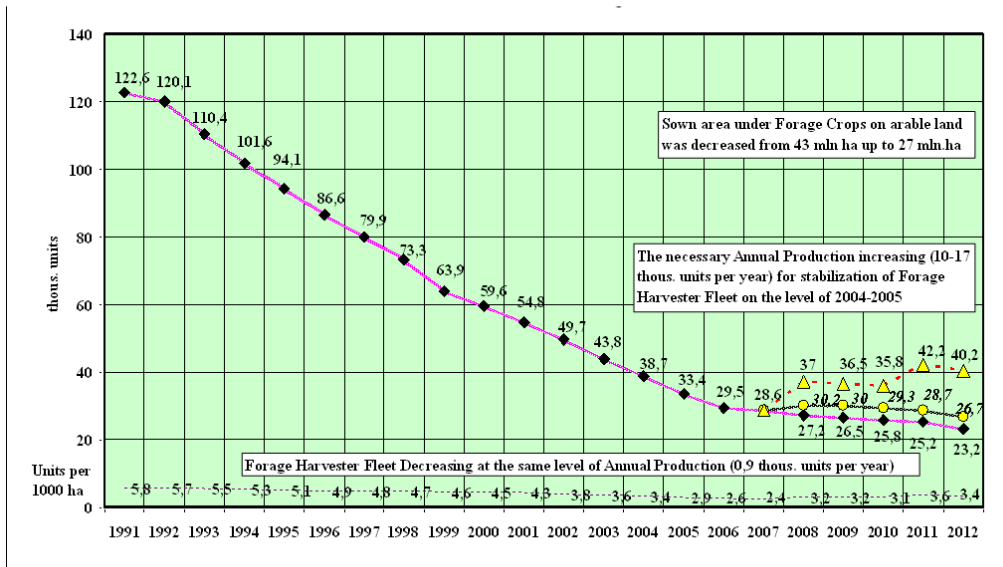
## Grain Harvester Fleet decreasing for 1991-2007 and the conditions of its stabilization during 2008-2012



**Forage Harvester Annual Production for 1991-2007 and the necessary its increasing during 2008-2012 for stabilization of the Forage Harvester Fleet on the level of 2004-2005**

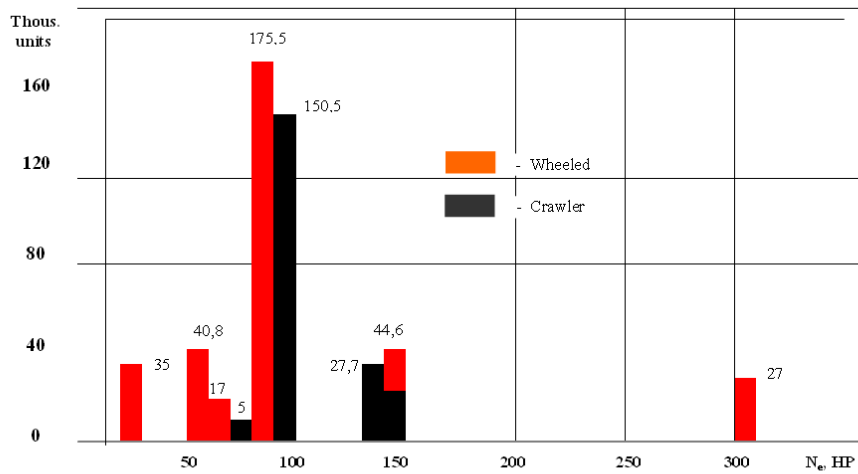


**Forage Harvester Fleet decreasing for 1991-2007 and the conditions of its stabilization during 2008-2012**



## Structure of Agricultural Tractor Fleet of Russia (2004)

*Total amount – 532 thous. units (412 thous. units behind of the service life)  
Average power of tractor unit is ~100 HP*



← / ≡ ⇒

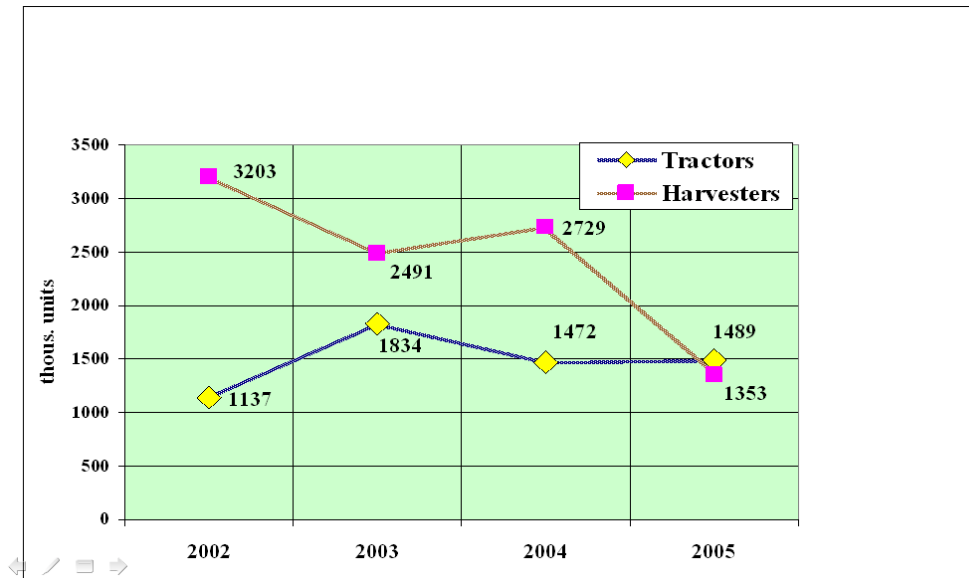
## Structure of tractors and self-propelled harvesters in Power

Machines	Power, HP			
	до 100	130 -240	250- 300	350-450
Tractors	87	8*	5*	-
Grain Harvesters	-	99*		-
Forage Harvesters	-	30	3*	3,7*
Sugar beet Harvesters	10	16,5*	0,2*	0,1*

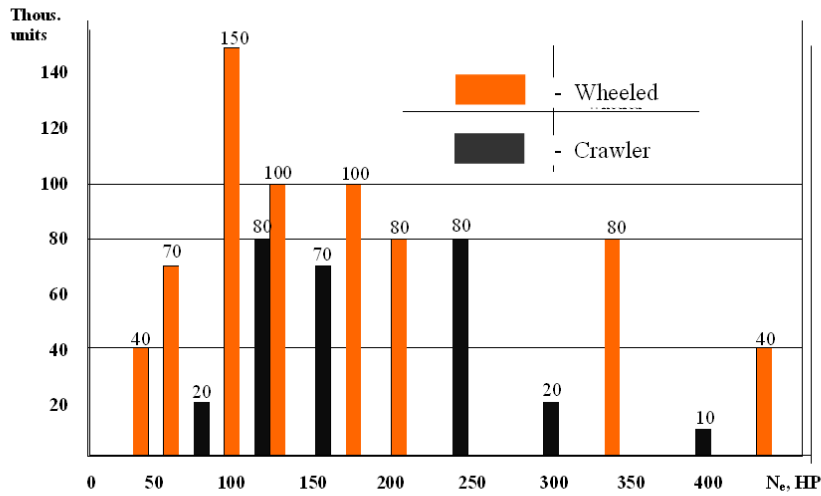
\*) Imported tractors (except from Belarus) are less than 1%,  
Grain harvesters ~ 0,7%,  
Forage harvesters ~3,7%,  
Sugar beet harvesters ~1,8%.

← / ≡ ⇒

## Deliveries of Tractors and Harvesters to Russia Agriculture through Federal Lease



### Structure of Perspective Tractor Fleet for the period up to 2015 (~ 940 thous. units with average power of tractor ~ 200 HP)

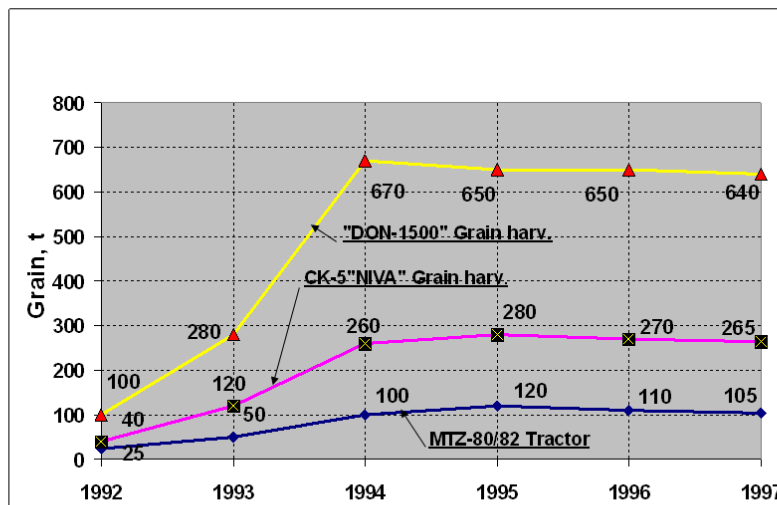


## Demand and Proposals for Agricultural Tractors on the Market of Russian Federation (thous. units)

Demand / Proposals	2004 г.	2005 г.	2006 г.*
Demand for domestic / imported tractors on Russian Market, total	3,3 / 12	4,4 / 12,2	3,9 / 12,4
Demand / Proposals for export of Russian domestic tractors, total	5,1 / 5,1	5,2 / 5,2	5,8 / 5,8
<b>Remark:</b> Use of Production Capacity of Russian Tractor Plants, %	9,6	9,9	10

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## GRAIN AMOUNT EQUIVALENT TO MACHINERY PRICES INCREASING



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## Complexes of machines on the base of UES-450

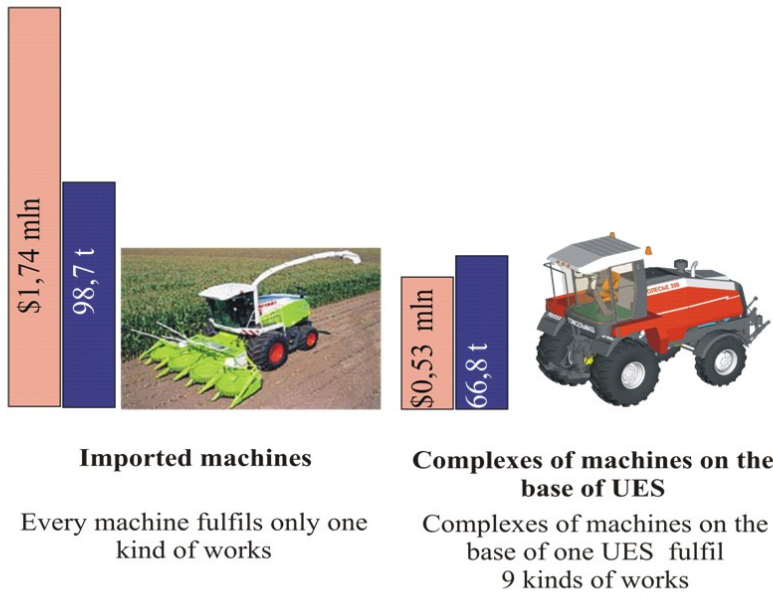


## The use of UES-450 on different kinds of works is more than 1200-1500 hours per year

Kinds of works	January	February	March	April	May	June	July	August	September	October	November	December	Loading, h
Slot tillage, Snow cleaning, Snow accumulation		Cleaning								Slot tillage		Snow accumulation	300
Loading and transportation of manures		Manure application											320
Silage loading from trenches										Silage loading from trenches			180
Grass sowing, haylage and silage harvesting				Sowing	Mowing	Harvesting							360
Grain and grain-fodder crops sowing and harvesting			Sowing				Harvesting						250
Corn for silage and grain				Sowing				Harvest					260
Sugar-beet harvesting										Harvest			260
Potato harvesting									Harvest				230
Soil tillage			Tillage					Tillage					280
Grasslands and pastures improvement				Grassland improvement				Grassland impr					280
Transportation		Transportation			Transportation						Transportation		200



### Weight and cost of different complex of machines for fulfillment of 9 kinds of works



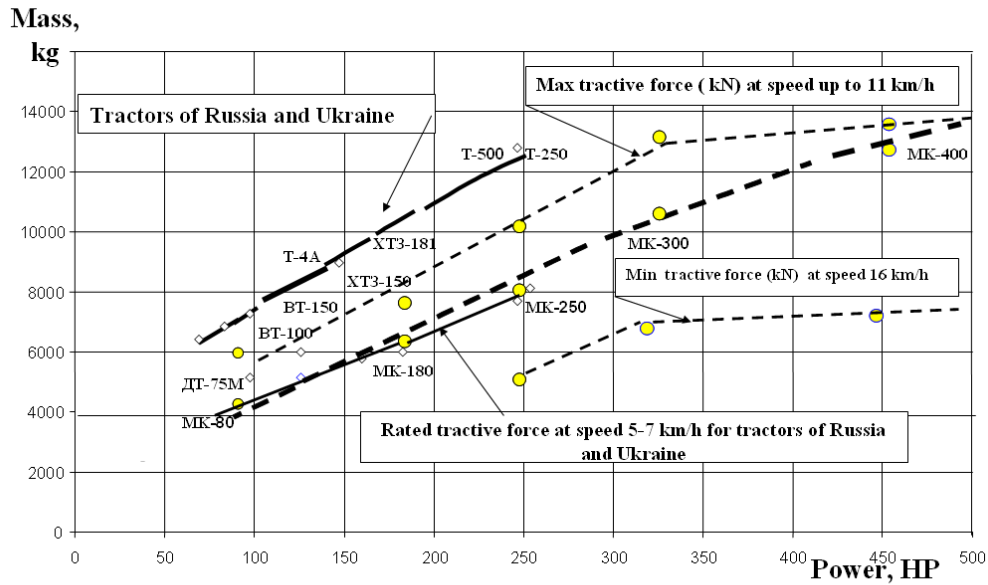
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### The rubber track tractor MK-250 of 250 HP (Japan firm “Morooka Co. Ltd”)



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## Comparison data of track layer tractors of Russia, Ukraine and Japan (data of firm Morooka)



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## Technical data of Morooka rubber track tractors (Japan)

Models	MK-80	MK-180	MK-250	MK-300	MK-400
Weight, kg	4290	6300	8000	10500	12400
Power, HP (Ne)	81	180	250	325	450
Tractive force, kN	61	75	100 / 50	135/67,5*	135/67,5*
Mass / Ne, kg/HP	53,6	35,0	32,0	32,3	27,6
Tractive force / Mass, kN / t	14,2	11,9	12,5/6,2	12,9/6,4*	10,9/5,4*
Tractive force/ Power, kN/HP	0,75	0,42	0,4/0,2	0,42/0,21*	0,3/0,15*

Data of firm Morooka for MK-250, MK-300 и MK-400 working speed:  
 1<sup>st</sup> diapason – 0...9 km/h and tractive force from 100 up 135 kN;  
 2<sup>nd</sup> diapason - 0...16 km/h and tractive force from 50 up 67,5 kN\*;

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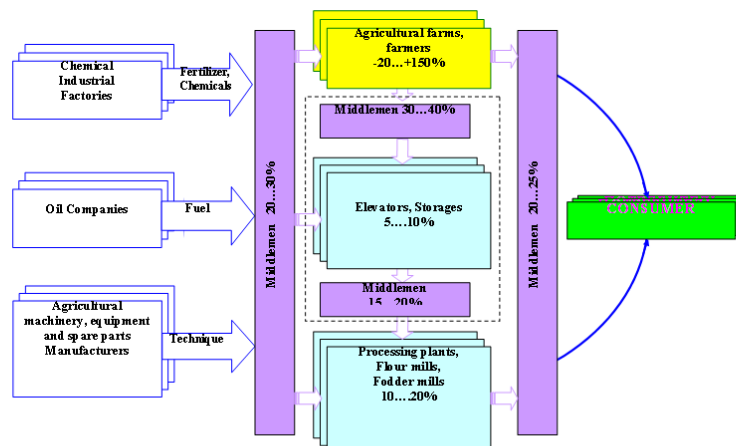
## Comparison of specific technical data of track layer tractors of Russia and Ukraine

Models	ДТ-75	BT-100	T-4A1	XT3-181	T-250	T-500
Mass, kg	6180	7580	8870	9050	12700	12000
Power, HP (Ne)	75	120	130	190	250	253
Tractive force, kN	40	49	57	58,6	82	77,6
Mass / Ne, kg/HP	82,4	63,2	68,2	47,6	50,8	47,4
Tractive force / Mass, kN/t	6,47	6,46	6,42	6,48	6,46	6,47
Tractive force / Power, kN/HP	0,53	0,41	0,44	0,31	0,33	0,31

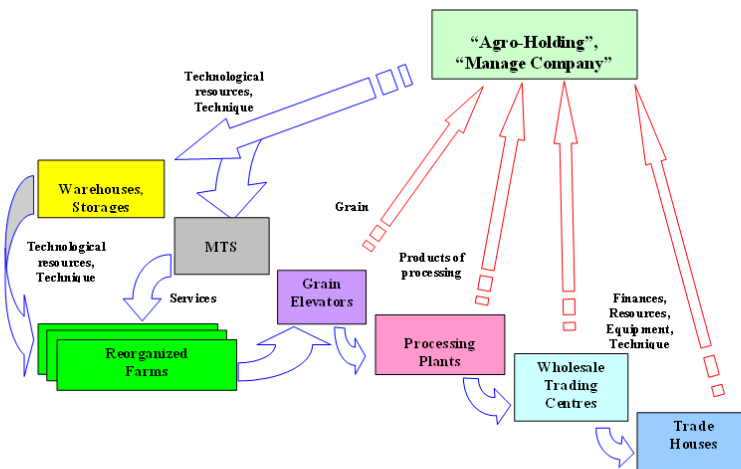
Working speed 5-8 km/h at rated tractive force (kN).



## Increase of Agricultural products costs and Middlemen's interests on the way of producing, storage, processing and realization



## Cooperation of Reorganized Farms under “Agro-Holding” Management



## FUTURE OF RUSSIAN AGRICULTURE

