



Let's grow together – Your strategic partner for tomorrow's agriculture.

Cotton production systems and economics (UZB)

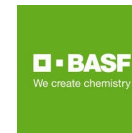
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Commercial partners



Nordzucker



Republic of Uzbekistan: general info

- **Total Area – 448 978 km²**
- **Agricultural land – 241 000 km² (53,6%)**
- **Population in 2022 estimate – 35,6 mln, Density – 77.13 ppl/km²**
- **Rural population – 17,6 mln (49.5%)**
- **GDP (nominal) – 2022 estimate: total \$69,601 mln, per capita \$2,014**
- **Capital and largest city – Tashkent (Population – 2,8 mln)**

Agriculture in Uzbekistan

22,7% of the economically active population, 3,6 mln (2022)

Share of agriculture in total GDP is 25,1%

24.1 mln hectares of agricultural land include (100%):

- Hayfields and pastures 15.0 mln ha (62,2%)

- 4.2 mln ha is arable land (17,4%), incl. 3.4 mln ha of irrigated land

Orchards 0.4 mln ha (1,7%)

Other 4,5 mln ha (18,7%)

Agriculture in Uzbekistan

Main crops:

- Cotton 1.04 mln ha, 24,8 % of arable land

Grains 1.28 mln ha, 30,5 % of arable land

Oil crops 0.17 mln ha, 4,1 % of arable land

- Vegetables 0.27 mln ha, 6,4 % of arable land

Role of cotton production in economics

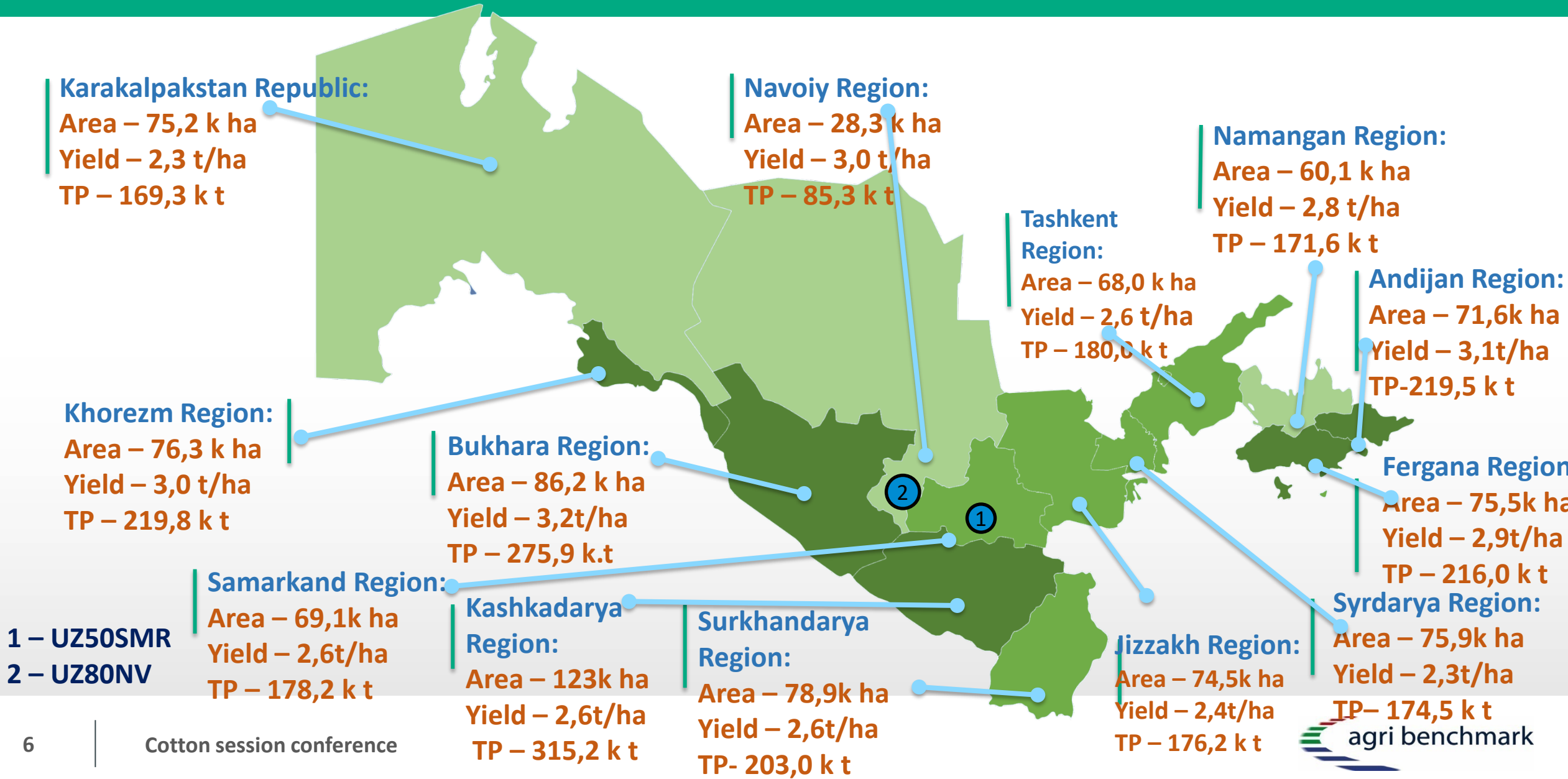
18% of the economically active population (from total of the country) is involved in cotton production

Production of the Raw Cotton takes about 7% in country's GDP (2022)

Raw Cotton is one of the main crops for export: 5,5% of the country export in 2022, (in 2000 its share was 33,1%)

Cotton is grown on the basis of full irrigation

Cotton production in Uzbekistan (avg 2012-2022)



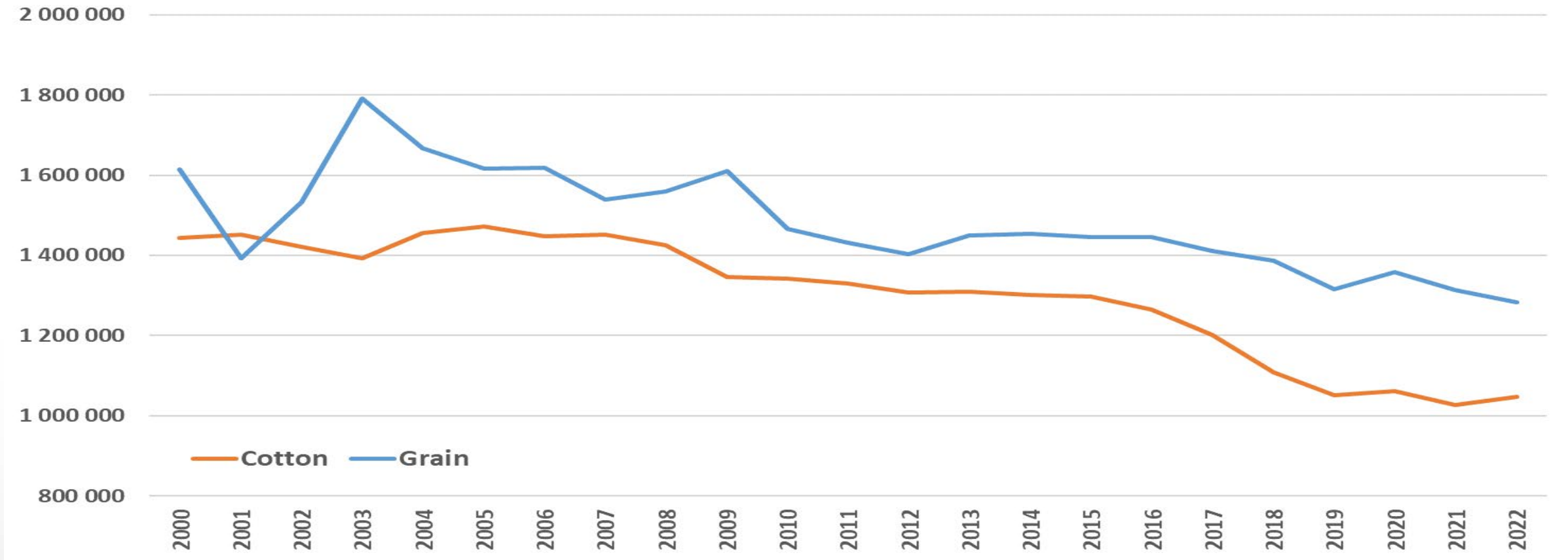
Cotton production by regions in 2022

№	Region	Production		Mechanized harvesting		Area under drip irrigation	
		k t	%	k t	%	k ha	%
	Uzbekistan	3500,7	100	634,0	18,1	53,3	5,2
1	Karakalpakstan	239,8	6,8	72,1	30,1	3,2	3,8
2	Andijan	277,4	7,9	16,0	5,8	3,6	4,6
3	Bukhara	359,3	10,3	0,2	0,01	12,4	12,5
4	Jizzakh	268,2	7,7	180,4	67,1	2,1	2,7
5	Kashkadarya	426,7	12,2	56,8	13,3	5,4	4,0
6	Navoi	115,1	3,3	2,3	2,0	1,6	4,9
7	Namangan	222,5	6,4	34,3	15,4	3,4	5,4
8	Samarkand	258,1	7,4	65,7	25,4	4,1	5,4
9	Surkhandarya	255,2	7,3	0	0,0	2,3	3,1
10	Sirdarya	242,6	6,9	117,8	48,6	2,4	3,1
11	Tashkent	254,2	7,3	77,7	30,5	3,5	4,8
12	Fergana	285,5	8,2	0	0,0	5,0	6,1
13	Khorezm	295,4	8,4	10,6	3,6	4,5	5,4

Composition of cotton farms by land area (2022)

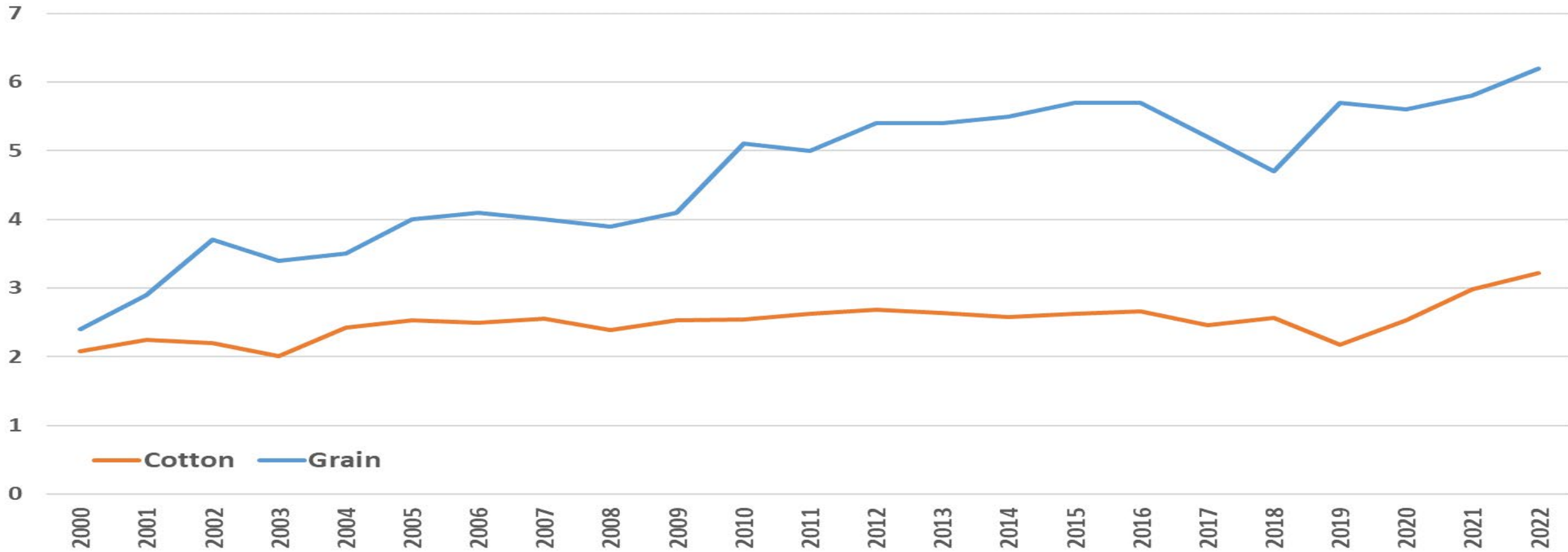
№	2022	Farmers Cotton Area, k ha	Number of farms							
			Total, k units	Avg. cott. acreage, ha	1-Group (up to 30 ha, units)	%	2-Group (30-60 ha, units)	%	3-Group (more than 60 ha, units)	%
	Uzbekistan	820,6	28,5	28,8	18 213	63,9	7 291	25,6	2 985	10,5
1	Karakalpakstan	72,2	2,4	30,6	1 563	66,3	546	23,2	249	10,6
2	Andijan	54,3	2,3	23,9	1 762	77,6	439	19,3	70	3,1
3	Bukhara	85,4	2,9	29,5	1 791	61,8	794	27,4	313	10,8
4	Jizzakh	65,6	2,1	31,9	1 128	54,8	704	34,2	225	10,9
5	Kashkadarya	113,1	6,0	18,9	5 047	84,5	779	13,0	150	2,5
6	Navoi (2)	29,1	0,8	35,8	315	38,7	376	46,2	123	15,1
7	Namangan	57,5	1,6	36,4	824	52,2	563	35,7	192	12,2
8	Samarkand (1)	61,2	1,9	31,4	1 143	58,7	582	29,9	221	11,4
9	Surkhandarya	48,7	2,0	25,8	1 299	68,7	459	24,3	134	7,1
10	Sirdarya	46,7	1,7	28,1	1 150	69,1	370	22,2	144	8,7
11	Tashkent	39,2	1,1	35,5	503	45,5	413	37,4	189	17,1
12	Fergana	71,4	2,4	29,1	1 448	59,1	796	32,5	205	8,4
13	Khorezm	76,1	1,5	51,4	240	16,2	470	31,8	770	52,0

Evolution of main crops acreage (ha)



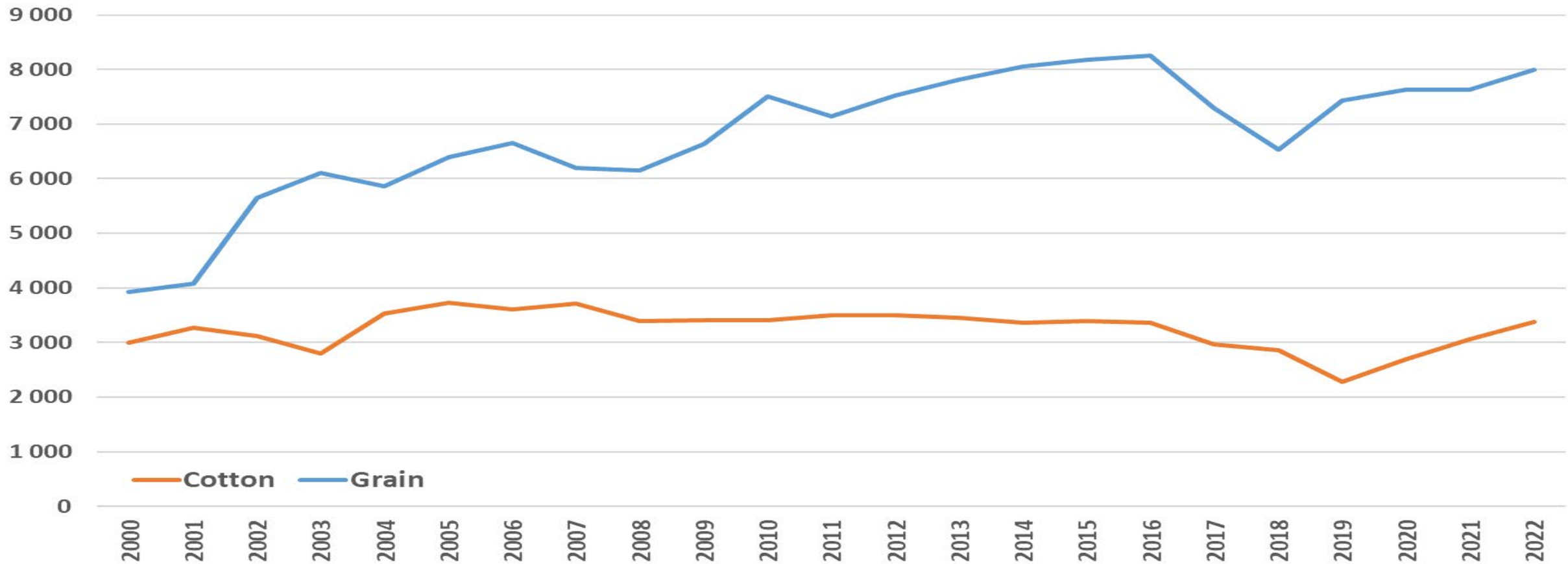
- Grain includes wheat (> 80%), corn, barley, oats, rice
- Acreage reduction in grains and cotton translated into an increase in fruits and vegetables

Evolution of the main crops yield (t/ha)



- Advancing in production technology contributed to improved yields of crops
- Cotton yield still has a potential for increase (raw cotton yield is referred to)

Evolution of the main crops production (k t)



Decrease in acreage and slight increase in yields resulted in flat cotton production
In grains (mostly wheat) yield increase outpaced acreage decline → production goes up

State procurement prices set for raw cotton

Year	Price of 1t of raw cotton, UZS	Price of 1 t of raw cotton, USD	End of December 1 \$ = UZS
1995	8159,1	326,4	25,00
1996	10545,9	182,8	57,70
1997	18486,6	230,6	80,17
1998	24713,3	224,7	110,00
1999	34807,0	248,6	140,00
2000	61074,1	187,9	325,00
2001	80939,3	117,6	688,00
2002	141314,8	145,7	970,00
2003	213483,6	217,8	980,00
2004	260000,0	245,7	1058,00
2005	303860,0	257,5	1180,00
2006	332144,7	267,9	1240,00
2007	345251,7	267,6	1290,00
2008	420878,8	302,1	1393,00
2009	448726,2	296,9	1511,40
2010	505170,0	308,0	1640,00
2011	640000,0	356,5	1795,00
2012	807000,0	406,8	1984,00
2013	873000,0	396,4	2202,20
2014	946000,0	390,5	2422,40
2015	1025000,0	364,8	2809,98
2016	1175000,0	363,6	3231,48
2017	3000740,0	369,5	8120,07
2018	5717240,0	685,6	8339,55
2019	4000000,0	420,7	9507,56
2020	4522500,0	431,7	10476,92
2021	7100000,0	655,1	10837,66
2022	10025000,0	893,1	11225,46

agri benchmark farm overview: UZ50SMR

Farm

- Area: 49,6 ha (Government land, rent for 49 years)
- Intensive tillage – plough
- Cotton – Winter Wheat rotation (irrigated)
- Cotton: 25,4 ha; yield of fiber: 1,1 t/ha
- Winter Wheat: 25,0 ha; yield: 6,0 t/ha
- Land Rent: single land tax equals to \$12.2 per ha (137.000 UZS)

Region

Samarkand region,
Uzbekistan

Soil type: Meadow-sierozem and sierozem-meadow soil

Precipitation: 382 mm

Ploughing



Belarus 80.x

Repurchase price is \$30.450

Price of a new tractor is \$31.650

Plough 4-blade

Repurchase price of a piece made by hand is \$450

The price of a new one is \$20.000

Capacity: 0,8 ha/h

Fuel consumption: 25 l/ha

Work depth: 30 cm

Seedbed preparation



Tooth harrow
Repurchase price is \$765

Capacity: 1 ha/h

Fuel consumption: 12 l/ ha

Seeding



Four-wheeled seeder
Repurchase price is \$4.300

Capacity: 1,4 ha/h

Fuel consumption: 4 l/ha

Irrigation



Water usage is 3600 m³ per season

Cost of irrigation is \$7 – just the cost of electricity

- **700-800 m³ per ha per one irrigation**
- **4-6 times irrigation per season**

Hoeing/loosening the soil after irrigation



Cultivator

New cultivator price is \$2.500

Handmade repairment worth \$85

Capacity: 1ha/h

Work depth: 15 cm

Fuel: 8 l/ha

Spraying



OBX600 (towed sprayer)

Repurchase price is \$1.400

Capacity: 5 ha/h

Fuel: 2 l/ha

Manual harvesting



Mechanized harvesting



Threshing



Stemcutter

Repurchase price is \$220

Capacity: 6 ha/h

Fuel: 2 l/ha

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Thanks a lot for your interest in  agri benchmark

Picture

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