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CIMMYT™

**WORLD WHEAT
OVERVIEW AND OUTLOOK**

2000-2001

**Developing No-Till
Packages for Small-Scale
Farmers**



Javier Ekboir, Editor



Part 4 | Selected Wheat Statistics

Pedro Aquino, Federico Carrión, and Ricardo Calvo

The following tables present statistics related to wheat production, utilization, and trade. These statistics reflect the latest information available at the time of publication.

Countries are classified as either “developing” or “high-income” based on the criteria used by the World Bank in its *World Development Indicators* (2001). Countries classified as “developing” had a per capita Gross National Income (GNI) lower than US\$ 9,265 in 1999, whereas high-income countries had a per capita GNI exceeding US\$ 9,266. Countries in Eastern Europe and the Former Soviet Union (FSU) are treated separately. Traditionally regarded as “developed” countries by FAO, most of these countries would be classified as developing countries based on World Bank criteria.

The first two tables present production and consumption statistics. Developing countries and those in Eastern Europe and the FSU are included in the individual country statistics if they produced or consumed at least 100,000 t

of wheat per year. Developing countries are classified as “wheat producers” if they produced more than 100,000 t of wheat per year, regardless of import and consumption levels.

Developing countries that produced less than 100,000 t/yr but nevertheless produced at least 50% of their total wheat consumption are also classified as producers. Developing countries that consumed over 100,000 t/yr are defined as “wheat consumers.” High-income countries are classified similarly, using minimum levels of production or consumption of one million tons. Three-year averages of the latest available production and consumption data were used in making the classifications.

Unless otherwise indicated, the regional aggregates include data from all countries in a particular region, including countries for which data have not been reported individually.

For a list of countries belonging to each region, see Appendix A. Regional means are appropriately weighted; thus they may not exactly equal the mean of the average values presented

for each country. Former Czechoslovakia, Former Yugoslavia, and FSU were divided into separate countries, for which statistics were reported individually.

Notes on the Variables

The data source for all production and consumption statistics is FAO, *FAOSTAT* (2001).

Growth rates were calculated using the log-linear regression model:

$$\ln Y = \alpha + \beta t + \varepsilon,$$

where $\ln Y$ is the natural logarithm of Y , t is time period (year), α is a constant, β is the growth rate of Y , and ε is the error term. The function describes a variable Y , which displays a constant proportional rate of growth ($\beta > 0$) or decay ($\beta < 0$). β may be interpreted as the annual percentage change in Y .

Yield was computed by dividing average production by the average area harvested. The data source is the *FAOSTAT Production Statistics* (May 2001).

Net imports are defined as imports minus exports. The data source is the FAOSTAT *Trade Statistics* (Dec. 2000).

Total consumption was calculated as the sum (in kg) of the amounts used for each type of wheat utilization (i.e., food, feed, seed, processing, waste, and other uses). The data source is the FAOSTAT *Commodity Balances* (May 2001). The growth rate was calculated using the regression model given above.

Data on wheat prices and input use were collected through a general country survey of knowledgeable wheat scientists. Data for experimental yields come from the CIMMYT Wheat Database Management System, Phenotypic and Genetic Data Tool (WDMSPGD). The data for prices and input use refer to an important producing region within each country.

The wheat price is the average post-harvest price received by farmers. The fertilizer price is usually the price paid by farmers for the most common fertilizers. In few cases, CIMMYT staff estimated data based on secondary sources.

Production statistics

Region/Country	Average wheat area, yield, and production, 1998-00			Growth of wheat area (%/yr)			
	Harvested area (000 ha)	Yield (t/ha)	Production (000 t)	1951-66	1966-77	1977-88	1988-00 ^a
Eastern and Southern Africa	2,216	1.9	4,102	2.1	1.0	0.6	-1.8
Ethiopia	964	1.2	1,171	1.0	-5.7	3.2	4.9
Kenya	105	1.8	185	-0.9	-1.1	2.5	-1.5
South Africa	775	2.4	1,878	3.1	3.4	0.6	-6.3
Sudan	170	1.9	328	8.4	13.4	-8.6	-2.7
Tanzania	66	1.5	100	3.8	2.0	1.4	2.6
Zambia	11	6.2	71	n.a.	27.6	13.9	-0.1
Zimbabwe	48	5.9	283	4.6	19.8	-1.1	1.4
North Africa	6,854	1.7	11,725	-0.1	0.9	-1.1	2.3
Algeria	1,847	0.8	1,393	0.2	1.5	-4.3	2.1
Egypt	1,022	6.2	6,335	-1.8	0.1	-0.2	4.0
Libya	163	1.0	164	1.5	-0.4	-2.0	0.7
Morocco	2,893	0.9	2,638	0.7	-0.2	2.4	1.3
Tunisia	928	1.3	1,195	-1.5	2.8	-5.5	4.7
West Asia	20,248	1.8	35,754	2.5	1.3	0.2	-0.2
Afghanistan	2,081	1.1	2,267	1.3	1.1	-3.4	2.8
Iran	5,473	1.7	9,209	5.0	1.1	1.7	-1.6
Iraq	1,519	0.5	799	0.7	-1.0	-1.4	3.6
Saudi Arabia	449	4.3	1,942	6.6	-1.4	27.0	-7.3
Syria	1,675	2.0	3,303	-0.1	5.2	-3.1	3.5
Turkey	8,900	2.0	18,000	2.6	1.3	0.0	-0.5
Yemen	95	1.6	147	6.0	9.8	-0.4	0.6
South Asia	36,899	2.5	92,794	2.1	3.5	1.2	1.3
Bangladesh	846	2.2	1,897	3.5	7.9	11.0	3.6
India	26,945	2.6	70,458	2.3	4.3	0.9	1.3
Myanmar	102	1.1	109	14.5	-4.0	3.5	-2.8
Nepal	644	1.7	1,100	-1.1	8.8	4.6	1.0
Pakistan	8,349	2.3	19,210	1.7	1.1	1.5	0.9
East Asia	28,763	3.8	108,016	-0.1	1.3	0.2	-0.6
China ^b	28,426	3.8	107,659	-0.3	1.4	0.1	-0.5
Mongolia	257	0.7	182	24.7	-0.7	2.3	-7.7
North Korea	79	2.2	170	8.7	-6.3	0.5	-1.3
Mexico, Central America, and the Caribbean	723	4.4	3,207	1.0	0.0	4.2	-3.3
Mexico	719	4.5	3,202	1.1	-0.2	4.6	-3.2
Andean Region, South America	331	1.1	355	-0.2	-2.7	0.4	1.7
Bolivia	155	0.9	136	6.5	2.5	0.2	5.6
Peru	129	1.3	160	-0.5	-1.9	-0.3	2.4
Southern Cone, South America	7,769	2.4	18,963	0.3	2.1	0.8	-1.0
Argentina	5,832	2.5	14,667	1.1	-1.3	0.9	2.1
Brazil	1,238	1.8	2,201	-1.3	13.9	0.6	-8.8
Chile	364	4.0	1,460	-0.1	-1.8	0.1	-4.1
Paraguay	155	1.4	220	12.7	3.5	17.2	-2.5
Uruguay	180	2.3	415	-3.8	1.1	-4.9	0.5
Eastern Europe and Former Soviet Union	48,462	1.9	93,464	2.4	-1.2	-2.3	-1.5
Albania	127	2.6	332	1.0	4.0	-0.2	-3.9
Armenia	111	1.8	199	n.a.	n.a.	n.a.	5.8
Azerbaijan	485	2.0	945	n.a.	n.a.	n.a.	1.2
Belarus	402	2.0	816	n.a.	n.a.	n.a.	19.4

Note: n.a. = not available.

^a Data for 1993-2000 (Former Ethiopia and Former Czechoslovakia) and 1992-2000 (Former Soviet Union and Former Yugoslavia).

^b Data for China include figures for Hong Kong.

^c Slovenia is a high-income country but is included here for greater geographical consistency with previous issues of *Wheat Facts and Trends*.

^d The world aggregates are not exactly equal to the FAO estimates because the method of aggregation may have differed.

Growth of wheat yield (%/yr)				Growth of wheat production (%/yr)				Wheat area as percent of total cereal area (average), 1998-00 (%)
1951-66	1966-77	1977-88	1988-00 ^a	1951-66	1966-77	1977-88	1988-00 ^a	
0.1	4.1	3.1	2.1	2.2	5.1	3.7	0.3	6
2.0	3.3	1.4	-0.6	3.0	-2.5	4.6	4.3	14
1.2	1.1	-0.8	0.2	0.3	0.0	1.7	-1.3	6
-1.9	5.2	4.3	5.3	1.1	8.6	4.9	-1.1	16
-0.3	-0.1	3.0	2.4	8.0	13.4	-5.7	-0.3	2
5.0	4.1	0.1	-1.2	8.8	6.2	1.5	1.4	2
n.a.	8.0	2.2	3.7	n.a.	35.6	16.1	3.6	2
7.1	4.4	3.4	-0.2	10.5	24.3	2.3	1.2	3
1.3	1.2	5.4	0.0	1.2	2.1	4.3	2.3	56
-0.9	0.3	3.2	0.1	-0.7	1.8	-1.0	2.2	75
2.3	3.4	3.4	2.2	0.5	3.5	3.2	6.2	39
9.0	3.0	10.3	-0.2	10.5	2.6	8.3	0.5	51
1.8	0.9	5.9	-6.0	2.5	0.7	8.3	-4.7	53
4.4	0.7	3.2	2.0	2.9	3.5	-2.3	6.7	73
0.2	2.8	2.1	0.2	2.8	4.1	2.3	0.0	65
-0.1	1.7	0.2	-0.4	1.2	2.8	-3.2	2.4	81
-1.3	2.2	1.1	3.6	3.8	3.3	2.8	2.0	70
1.5	0.5	2.7	-5.4	2.2	-0.5	1.3	-1.8	52
1.3	-0.4	9.1	-0.4	7.9	-1.8	36.1	-7.7	68
1.8	2.8	5.0	3.0	1.7	8.1	1.9	6.5	54
0.4	3.5	1.4	-0.3	3.0	4.8	1.4	-0.9	66
0.5	-0.8	3.8	-0.5	6.5	9.0	3.4	0.0	14
1.1	4.3	3.1	2.2	3.2	7.8	4.3	3.5	27
0.9	6.0	0.9	2.7	4.3	13.9	12.0	6.3	7
1.4	4.0	3.5	2.2	3.7	8.3	4.4	3.5	27
4.4	2.6	7.3	-0.6	18.9	-1.3	10.8	-3.3	2
2.1	-0.7	1.4	2.6	1.1	8.2	6.1	3.5	20
0.5	5.1	1.8	2.3	2.2	6.2	3.3	3.2	67
0.9	4.4	6.2	2.4	0.7	5.7	6.4	1.8	31
0.9	4.4	6.3	2.4	0.6	5.8	6.4	1.8	31
2.8	5.0	7.7	-5.4	27.5	4.3	10.0	-13.1	98
-7.8	8.4	1.6	3.1	0.9	2.1	2.1	1.8	6
7.3	3.8	1.9	1.2	8.3	3.8	6.1	-2.1	5
7.3	3.9	1.6	1.2	8.4	3.8	6.2	-2.0	7
0.7	-0.1	2.4	-0.3	0.5	-2.8	2.8	1.4	7
0.1	3.1	2.0	1.5	6.5	5.5	2.3	7.0	20
0.1	0.6	2.5	0.2	-0.5	-1.3	2.2	2.6	12
1.7	0.8	4.4	2.7	1.9	2.8	5.1	1.7	27
1.8	3.1	2.1	2.7	2.9	1.8	3.0	4.8	56
-0.4	-1.2	8.3	1.9	-1.7	12.7	8.9	-6.9	7
1.9	-1.2	5.4	2.4	1.9	-3.0	5.6	-1.7	63
1.4	-0.7	4.8	-2.0	14.1	2.8	22.0	-4.5	28
0.2	0.1	8.0	0.7	-3.6	1.3	3.2	1.1	31
1.5	1.8	1.6	-1.4	3.9	0.6	-0.8	-2.9	51
-0.2	6.1	2.8	-1.0	0.8	10.1	2.6	-4.9	59
n.a.	n.a.	n.a.	-4.1	n.a.	n.a.	n.a.	1.7	61
n.a.	n.a.	n.a.	1.3	n.a.	n.a.	n.a.	2.5	82
n.a.	n.a.	n.a.	-3.9	n.a.	n.a.	n.a.	15.5	17

Production statistics (cont'd.)

Region/Country	Average wheat area, yield, and production, 1998-00			Growth of wheat area (%/yr)			
	Harvested area (000 ha)	Yield (t/ha)	Production (000 t)	1951-66	1966-77	1977-88	1988-00 ^a
Bosnia Herzegovina	101	2.9	291	n.a.	n.a.	n.a.	1.0
Bulgaria	1,069	2.7	2,880	-1.7	-2.1	2.2	-0.9
Croatia	217	4.1	886	n.a.	n.a.	n.a.	1.7
Czech Republic	917	4.4	3,986	n.a.	n.a.	n.a.	2.6
Estonia	68	1.8	118	n.a.	n.a.	n.a.	6.6
Georgia	109	1.4	151	n.a.	n.a.	n.a.	3.0
Hungary	981	3.8	3,749	-2.1	1.0	0.5	-1.7
Kazakhstan	9,304	0.9	8,360	n.a.	n.a.	n.a.	-5.0
Kyrgyzstan	463	2.4	1,117	n.a.	n.a.	n.a.	7.3
Latvia	152	2.6	388	n.a.	n.a.	n.a.	2.8
Lithuania	355	3.0	1,047	n.a.	n.a.	n.a.	2.8
Macedonia	115	3.0	345	n.a.	n.a.	n.a.	-0.3
Moldova Republic	339	2.4	828	n.a.	n.a.	n.a.	1.4
Poland	2,616	3.5	9,030	0.4	0.6	2.3	1.5
Romania	1,866	2.5	4,720	0.7	-2.4	0.9	-1.4
Russian Federation	19,855	1.6	31,336	n.a.	n.a.	n.a.	-2.6
Slovakia	377	3.7	1,410	n.a.	n.a.	n.a.	-2.3
Slovenia ^c	34	4.3	145	n.a.	n.a.	n.a.	-3.5
Tajikistan	330	1.1	365	n.a.	n.a.	n.a.	9.6
Turkmenistan	508	2.9	1,484	n.a.	n.a.	n.a.	12.2
Ukraine	5,575	2.3	12,894	n.a.	n.a.	n.a.	-0.2
Uzbekistan	1,298	2.6	3,332	n.a.	n.a.	n.a.	9.0
Yugoslavia, Fed. Rep. of	689	3.4	2,310	n.a.	n.a.	n.a.	-2.6
Western Europe, North America, Japan, and Other High-Income Countries							
Other High-Income Countries	62,923	3.4	216,211	-0.1	0.6	0.1	-0.2
Australia	11,985	1.8	22,009	5.1	0.2	-0.8	3.4
Austria	273	5.0	1,357	2.5	-1.1	1.4	-0.3
Belgium-Luxembourg	213	7.8	1,660	1.0	-1.2	0.3	0.0
Canada	10,670	2.4	25,929	1.1	-1.0	2.9	-2.5
Denmark	645	7.3	4,700	4.2	2.3	12.7	4.5
Finland	141	2.8	400	5.2	-2.4	2.1	0.6
France	5,206	7.3	38,139	0.1	0.4	1.6	0.5
Germany	2,794	7.3	20,479	1.5	2.1	0.6	1.1
Greece	860	2.2	1,890	1.5	-2.0	-1.2	-1.0
Ireland	78	8.5	659	-4.3	-4.7	3.4	1.8
Italy	2,337	3.4	7,848	-0.8	-2.9	-0.7	-1.9
Netherlands	127	8.1	1,025	5.1	-2.3	-1.1	0.2
New Zealand	46	7.1	327	5.6	-2.0	-3.3	2.1
Norway	61	4.9	299	-13.0	20.8	10.9	3.0
Spain	2,235	2.7	5,951	-0.2	-4.5	-2.3	-0.2
Sweden	358	6.0	2,146	-3.4	4.9	-0.2	2.5
Switzerland	95	5.8	556	0.8	-2.0	0.9	-0.1
United Kingdom	1,993	7.9	15,680	0.2	2.5	5.3	0.1
United States of America	22,373	2.9	64,136	-1.9	3.1	-1.4	-0.6
Regional Aggregates							
Developing Countries	103,873	2.6	275,052	1.1	1.9	0.5	0.2
Eastern Europe and Former Soviet Union	48,462	1.9	93,464	2.4	-1.2	-2.3	-1.5
Western Europe, North America, Japan, and Other High-Income Countries	62,923	3.4	216,211	-0.1	0.6	0.1	-0.2
World ^d	215,258	2.7	584,727	1.2	0.5	-0.4	-0.3

Note: n.a. = not available.

^a Data for 1993-2000 (Former Ethiopia and Former Czechoslovakia) and 1992-2000 (Former Soviet Union and Former Yugoslavia).

^b Data for China include figures for Hong Kong.

^c Slovenia is a high-income country but is included here for greater geographical consistency with previous issues of *Wheat Facts and Trends*.

^d The world aggregates are not exactly equal to the FAO estimates because the method of aggregation may have differed.

Growth of wheat yield (%/yr)				Growth of wheat production (%/yr)				Wheat area as percent of total cereal area (average), 1998-00 (%)
1951-66	1966-77	1977-88	1988-00 ^a	1951-66	1966-77	1977-88	1988-00 ^a	
n.a.	n.a.	n.a.	-3.0	n.a.	n.a.	n.a.	-2.1	25
3.1	3.3	-0.1	-5.0	1.4	1.3	2.1	-5.9	58
n.a.	n.a.	n.a.	0.2	n.a.	n.a.	n.a.	1.9	36
n.a.	n.a.	n.a.	-0.4	n.a.	n.a.	n.a.	2.2	56
n.a.	n.a.	n.a.	-1.1	n.a.	n.a.	n.a.	5.6	20
n.a.	n.a.	n.a.	-1.7	n.a.	n.a.	n.a.	1.7	31
2.7	5.3	2.3	-3.3	0.6	6.4	2.9	-5.0	37
n.a.	n.a.	n.a.	-1.5	n.a.	n.a.	n.a.	-6.4	81
n.a.	n.a.	n.a.	-0.1	n.a.	n.a.	n.a.	7.2	77
n.a.	n.a.	n.a.	2.1	n.a.	n.a.	n.a.	4.9	35
n.a.	n.a.	n.a.	2.8	n.a.	n.a.	n.a.	5.6	34
n.a.	n.a.	n.a.	2.4	n.a.	n.a.	n.a.	2.1	52
n.a.	n.a.	n.a.	-4.3	n.a.	n.a.	n.a.	-2.8	39
3.8	3.3	2.6	-0.8	4.2	3.9	4.9	0.7	30
2.9	4.6	1.3	-2.4	3.5	2.2	2.2	-3.8	34
n.a.	n.a.	n.a.	-0.7	n.a.	n.a.	n.a.	-3.3	53
n.a.	n.a.	n.a.	-3.0	n.a.	n.a.	n.a.	-5.3	47
n.a.	n.a.	n.a.	0.2	n.a.	n.a.	n.a.	-3.4	36
n.a.	n.a.	n.a.	4.0	n.a.	n.a.	n.a.	13.6	86
n.a.	n.a.	n.a.	5.3	n.a.	n.a.	n.a.	17.5	83
n.a.	n.a.	n.a.	-6.1	n.a.	n.a.	n.a.	-6.3	46
n.a.	n.a.	n.a.	8.9	n.a.	n.a.	n.a.	17.9	82
n.a.	n.a.	n.a.	-0.3	n.a.	n.a.	n.a.	-2.9	32
2.2	1.6	2.0	1.8	2.1	2.2	2.1	1.6	47
1.0	0.1	2.2	1.6	6.2	0.2	1.4	4.9	70
2.3	2.4	2.8	-0.2	4.9	1.3	4.2	-0.5	33
1.3	2.5	3.5	2.1	2.3	1.3	3.8	2.1	64
0.3	1.7	-1.4	3.3	1.4	0.7	1.5	0.8	59
1.0	1.2	2.4	0.4	5.2	3.6	15.1	4.9	43
1.3	3.3	1.9	-0.3	6.5	0.9	3.9	0.3	12
3.4	2.6	2.6	1.3	3.5	3.0	4.2	1.8	57
1.4	1.6	3.1	2.0	2.9	3.7	3.6	3.1	40
2.8	3.1	0.8	-2.0	4.3	1.1	-0.4	-3.0	67
2.1	1.4	3.4	0.9	-2.2	-3.3	6.9	2.7	27
1.8	1.0	1.7	1.2	1.0	-1.9	1.0	-0.7	57
1.3	2.2	2.4	0.7	6.4	-0.1	1.3	0.9	63
1.6	-0.1	2.0	4.6	7.1	-2.1	-1.4	6.7	35
2.4	2.7	0.1	2.1	-10.6	23.4	11.1	5.1	18
1.1	2.4	5.3	0.5	0.9	-2.1	3.0	0.3	33
4.3	2.4	2.3	0.5	0.9	7.3	2.1	2.9	29
1.4	1.3	3.0	-0.2	2.2	-0.7	3.9	-0.3	52
2.8	1.6	2.5	1.8	3.0	4.1	7.8	1.8	60
3.3	1.1	1.4	1.7	1.4	4.2	-0.1	1.1	38
1.0	3.4	4.3	1.8	2.0	5.3	4.8	2.0	23
1.5	1.8	1.6	-1.4	3.9	0.6	-0.8	-2.9	51
2.2	1.6	2.0	1.8	2.1	2.2	2.1	1.6	47
1.5	2.1	2.7	1.2	2.6	2.6	2.4	0.9	32

Consumption statistics

Region/Country	Average net wheat imports, 1997-99		Wheat consumption		Average percent wheat use	
	Total (000 t)	Per capita (kg/yr)	Average per capita, 1997-99 (kg/yr)	Growth rate per capita, 1990-99 (%/yr) ^a	Human consumption 1997-99 (%)	Animal feed 1997-99 (%)
Eastern and Southern Africa	2,715	8	27	0.7	94	1
Angola	36	3	25	7.4	99	++
Eritrea	151	42	53	-5.9	94	++
Ethiopia	400	7	26	-0.4	91	++
Kenya	484	17	24	6.5	96	++
Mauritius	119	104	98	1.8	99	++
Mozambique	207	11	12	1.0	98	++
South Africa	367	9	74	0.8	93	2
Sudan	351	12	37	-2.3	95	++
Tanzania	207	6	10	8.7	96	++
Uganda	42	2	5	13.0	98	++
Zambia	32	4	14	3.7	97	++
Zimbabwe	52	5	30	0.1	95	++
Western and Central Africa	2,899	10	15	4.4	91	<1
Cameroon	158	11	15	-2.1	97	++
Congo, Dem. Rep. of	86	2	8	5.0	97	++
Congo, Republic of	80	29	58	4.0	98	++
Côte d'Ivoire	266	19	19	0.1	98	++
Ghana	229	12	12	-2.3	98	++
Guinea	n.a.	n.a.	12	-6.1	98	++
Mauritania	295	117	163	6.8	51	++
Nigeria	1,260	12	14	11.6	95	1
Senegal	199	22	25	-0.8	98	++
North Africa	14,491	105	203	-0.1	82	6
Algeria	3,758	125	213	-0.2	91	<1
Egypt	6,736	102	184	0.2	79	10
Libya	312	58	276	-0.8	57	20
Morocco	2,482	91	209	-0.4	86	1
Tunisia	1,204	129	241	0.1	87	1
West Asia	10,620	45	211	-0.6	74	8
Afghanistan	125	6	132	0.9	84	++
Iran	5,211	79	229	0.8	73	17
Iraq	2,334	107	151	-1.0	82	7
Jordan	613	131	160	0.9	94	++
Lebanon	386	121	171	0.1	76	8
Saudi Arabia	<1	<1	119	-3.0	97	<1
Syria	-475	-31	237	-1.0	79	5
Turkey	965	15	290	-1.0	65	5
Yemen	1182	70	128	1.5	98	++
South Asia	6,842	5	66	1.2	88	1
Bangladesh	1,625	13	22	0.2	92	++
India	1,573	2	66	1.3	87	1
Myanmar	6	<1	3	0.1	93	++
Nepal	14	<1	45	0.6	79	3
Pakistan	2,751	19	133	0.6	91	2
Sri Lanka	<1	46	46	1.0	98	++

Note: ++ = not applicable; n.a. not available.

^a Data for 1993-99 (Former Ethiopia and Former Czechoslovakia), 1992-99 (Former Soviet Union and Former Yugoslavia).

^b Data for China include figures for Hong Kong.

^c Slovenia is a high-income country but is included here for greater geographical consistency with previous issues of *Wheat Facts and Trends*.

^d The world aggregates are not exactly equal to the FAO estimates because the method of aggregation may have differed.

Consumption statistics (cont'd.)

Region/Country	Average net wheat imports, 1997-99		Wheat consumption		Average percent wheat use	
	Total (000 t)	Per capita (kg/yr)	Average per capita, 1997-99 (kg/yr)	Growth rate per capita, 1990-99 (%/yr) ^a	Human consumption 1997-99 (%)	Animal feed 1997-99 (%)
Southeast Asia and Pacific	7,676	17	17	3.7	94	4
Indonesia	3,253	16	17	5.7	98	++
Malaysia	1,141	53	42	-2.3	60	33
Papua New Guinea	130	28	29	8.4	99	++
Philippines	2,096	29	29	1.5	100	++
Thailand	635	11	10	4.4	98	++
Viet Nam	317	4	7	8.4	98	++
East Asia	5,940	4	93	-0.1	87	3
China ^b	2,270	2	94	-0.1	88	2
Mongolia	24	9	133	-8.4	84	1
North Korea	243	10	25	0.5	90	2
South Korea	3,403	74	88	1.2	56	43
Mexico, Central America, and the Caribbean	4,679	29	52	-0.2	74	8
Costa Rica	198	52	48	3.9	96	++
Cuba	805	72	93	-3.2	57	37
Dominican Republic	283	34	35	1.8	76	22
El Salvador	118	20	20	-13.1	99	++
Guatemala	385	36	38	4.6	99	++
Haiti	62	8	32	1.6	95	++
Honduras	172	28	33	3.3	85	++
Jamaica	191	75	61	-2.5	98	++
Mexico	2,027	21	55	0.3	70	4
Nicaragua	104	22	26	2.6	98	++
Panama	102	37	46	3.0	98	++
Trinidad and Tobago	142	111	96	0.3	94	++
Andean Region, South America	4,073	37	41	0.3	97	<1
Bolivia	138	17	40	-5.7	90	++
Colombia	1,063	26	28	2.5	98	++
Ecuador	483	40	42	2.6	99	<1
Peru	1,216	49	56	2.2	97	++
Venezuela	1,098	47	49	-2.2	97	<1
Southern Cone, South America	-3,028	-13	75	0.6	84	5
Argentina	-9,319	-258	152	0.3	76	3
Brazil	6,044	36	53	1.4	90	4
Chile	447	30	128	-1.7	88	6
Paraguay	-70	-13	64	0.1	36	45
Uruguay	-129	-39	115	-0.4	76	11
Eastern Europe and Former Soviet Union	-2,110	-5	247	-4.4	54	28
Albania	65	21	216	0.4	72	5
Armenia	198	56	174	1.7	91	2
Azerbaijan	274	36	191	-0.4	89	5
Belarus	769	75	148	-0.1	49	38
Bosnia Herzegovina	175	48	172	7.9	62	5
Bulgaria	-405	-49	329	-5.8	41	39
Croatia	59	13	179	2.4	51	27
Czech Republic	-125	-12	357	5.4	29	55
Estonia	33	23	151	7.9	54	39

Note: ++ = not applicable; n.a. not available.

^a Data for 1993-99 (Former Ethiopia and Former Czechoslovakia), 1992-99 (Former Soviet Union and Former Yugoslavia).

^b Data for China include figures for Hong Kong.

^c Slovenia is a high-income country but is included here for greater geographical consistency with previous issues of *Wheat Facts and Trends*.

^d The world aggregates are not exactly equal to the FAO estimates because the method of aggregation may have differed.

Consumption statistics (cont'd.)

Region/Country	Average net wheat imports, 1997-99		Wheat consumption		Average percent wheat use	
	Total (000 t)	Per capita (kg/yr)	Average per capita, 1997-99 (kg/yr)	Growth rate per capita, 1990-99 (%/yr) ^a	Human consumption 1997-99 (%)	Animal feed 1997-99 (%)
Georgia	204	40	116	-3.5	95	++
Hungary	-1,153	-114	287	-4.8	37	43
Kazakhstan	-2,779	-170	311	-8.3	54	8
Kyrgyzstan	123	26	282	-0.8	75	7
Latvia	-2	-1	159	4.7	56	20
Lithuania	-157	-43	256	2.4	47	34
Macedonia	80	40	298	4.6	45	3
Moldova Republic	-42	-9	224	-6.6	29	24
Poland	352	9	248	0.6	43	42
Romania	-538	-24	232	-1.8	71	11
Russian Federation	1,689	11	248	-4.7	53	29
Slovakia	-53	-10	288	-4.5	37	52
Slovenia ^c	166	83	162	1.2	52	24
Tajikistan	345	57	165	-2.3	97	++
Turkmenistan	220	17	330	0.7	66	22
Ukraine	-2,700	-53	256	-5.7	51	33
Uzbekistan	1,167	49	235	4.0	93	4
Yugoslavia, Fed. Rep. of	73	7	249	-0.5	38	31
Western Europe, North America, Japan, and Other High-Income Countries	-56,440	-66	166	2.0	51	37
Australia	-17,049	-921	209	1.8	35	20
Austria	-306	-38	138	1.3	54	36
Belgium Luxembourg	2,107	199	263	5.0	37	46
Canada	-17,506	-573	265	1.2	34	51
Denmark	-786	-149	782	8.3	11	82
Finland	199	39	113	4.1	65	23
France	-15,169	-259	321	4.3	30	53
Germany	-3,531	-43	183	2.7	38	52
Greece	463	44	187	0.4	74	9
Ireland	328	89	301	2.5	33	59
Israel	1,400	234	188	-1.6	62	14
Italy	6,496	113	182	-0.4	82	10
Japan	6,015	48	50	-0.2	87	7
Kuwait	202	112	89	5.1	90	++
Netherlands	2403	153	200	6.7	31	54
New Zealand	189	50	115	0.3	61	21
Norway	245	56	120	0.6	80	17
Portugal	1,332	135	163	4.4	60	32
Spain	2,934	74	192	4.1	47	46
Sweden	-452	-51	200	4.6	40	47
Switzerland	219	30	120	-0.9	74	21
United Kingdom	-2,391	-41	235	3.2	38	45
United States of America	-24,927	-91	127	<1	69	24
Regional Aggregates						
Developing Countries	56,907	12	74	0.3	85	4
Eastern Europe and Former Soviet Union	-2,110	-5	247	-4.4	54	28
Western Europe, North America, Japan and Other High-Income Countries	-56,440	-66	166	2.0	51	37
World ^d	—	—	99	-0.6	71	16

Note: ++ = not applicable; n.a. not available.

^a Data for 1993-99 (Former Ethiopia and Former Czechoslovakia), 1992-99 (Former Soviet Union and Former Yugoslavia).

^b Data for China include figures for Hong Kong.

^c Slovenia is a high-income country but is included here for greater geographical consistency with previous issues of *Wheat Facts and Trends*.

^d The world aggregates are not exactly equal to the FAO estimates because the method of aggregation may have differed.

CIMMYT experimental and national average wheat yields, 1997-2000 (t/ha)

Country/Region ^a	Experimental wheat yield ^b		Average national wheat yield	Country/Region ^a	Experimental wheat yield ^b		Average national wheat yield
	Bread	Durum			Bread	Durum	
Eastern and Southern Africa	5.01	2.18	1.9	Andean Region, South America	2.18	2.12	1.0
Ethiopia	3.05 ^f	1.85 ^{f,g}	1.2	Bolivia	1.96 ^{e,g}	2.12 ^d	0.9
Kenya	3.59 ^{e,g}	3.67 ^e	1.7	Ecuador	3.34 ^e	n.t.	0.7
Malawi	0.87 ^e	0.55 ^f	0.8	Peru	1.80 ^f	n.t.	1.2
South Africa	4.20	2.73 ^e	2.4	Southern Cone, South America	3.77	4.97	2.4
Zambia	6.93	n.t.	6.2	Argentina	2.71 ^{e,g}	3.96 ^{e,f,g}	2.5
Zimbabwe	7.77	5.27 ^f	6.0	Brazil	2.22 ^{f,g}	4.19 ^{d,f}	1.8
Western and Central Africa	1.87	n.t.	1.3	Chile	7.05	5.82	4.0
Congo, Dem. Rep. of	1.87 ^e	n.t.	1.3	Paraguay	2.29 ^e	n.t.	1.5 ^c
North Africa	5.97	4.83	1.7	Uruguay	3.70 ^e	n.t.	2.3
Algeria	1.57 ^f	1.84 ^{d,f}	0.7	Eastern Europe and the Former Soviet Union	4.30	3.50	2.0
Egypt	6.77	5.70	6.2	Azerbaijan	5.68 ^g	n.t.	2.0
Morocco	n.t.	4.94 ^{d,f}	0.9	Bulgaria	3.63 ^{e,g}	3.57 ^{d,e,f}	2.7
Tunisia	2.36	2.10 ^d	1.3	Hungary	n.t.	0.56 ^d	3.8
West Asia	4.63	4.85	1.8	Poland	4.67	n.t.	3.4
Afghanistan	4.14 ^{e,f}	n.t.	1.1	Russia	3.74 ^e	n.t.	1.6
Iran	5.52 ^g	5.26 ^g	1.7	Yugoslavia	n.t.	6.35 ^{e,f,g}	3.3
Iraq	6.84 ^{e,g}	3.74 ^{e,g}	0.5	Western Europe, North America, and Other High-Income Countries	5.33	3.56	2.6
Saudi Arabia	6.93 ^e	8.56 ^{d,g}	4.3	Canada	5.54	4.21 ^{e,f,g}	2.4
Syria	2.83	3.58	2.0	Cyprus	n.t.	2.24 ^{d,f}	2.0
Turkey	5.72 ^{e,f}	4.88 ^{d,e,g}	2.0	Greece	3.38 ^{e,g}	0.80 ^{d,f}	2.2
Yemen	1.50 ^e	n.t.	1.6	Italy	6.83 ^{e,g}	6.23	3.4
South Asia	3.66	3.29	2.5	Portugal	4.65 ^{e,g}	2.98 ^{d,e,f}	1.5
Bangladesh	3.67 ^{e,f}	0.98 ^g	2.2	Spain	5.55	3.15	2.7
India	4.18	3.48	2.6	Total	4.43	3.82	2.5
Nepal	2.60	n.t.	1.7				
Pakistan	3.17	3.16	2.3				
Southeast Asia and Pacific	1.24	1.24	0.6				
Thailand	0.72 ^e	1.24 ^{d,g}	0.6				
Vietnam	2.20 ^e	n.t.	n.a.				
East Asia	5.77	3.86	3.8				
China	5.96	3.86 ^{f,g}	3.8				
South Korea	4.74 ^{e,g}	n.t.	3.6				
Mexico, Central America and the Caribbean	4.93	5.84	4.5				
Guatemala	5.28 ^e	n.t.	1.9				
Mexico	4.90	5.84	4.5				

Note: n.t. = no trial; n.a. = not available.

^a Regional aggregates include only individual countries for which data have been reported.

^b More than half of the bread wheat (60%) and durum wheat (53%) trials were conducted under irrigation, and some were conducted under high rainfall conditions. Because of these factors (aside from the higher yield potential of wheats included in the trials), the gap between experimental yields and national average yields is wider in some countries than in others, especially those growing winter and facultative wheat, which is produced mostly in rainfed areas.

^c Paraguay experienced a severe drought in 1998-2000. The drought substantially affected wheat yields, which usually average 2 t/ha.

^d 1997.

^e 1998.

^f 1999.

^g 2000.

Wheat prices and input use

Country	Farm price of wheat, 2000-2001 (US\$/t)		Consumer price of wheat flour, 2000-2001 (US\$/t)	Ratio of farm-level fertilizer price to wheat price, 2000-2001			Fertilized area as a percentage of total wheat area, 2000-2001	Fertilizer applied to wheat, 2000-2001 (kg/ha)			Farm wage in kg of wheat per day, 2000-2001
	Bread	Durum		Nitrogen	Phosphorus	Potassium		Nitrogen	Phosphorus	Potassium	
Eastern and Southern Africa											
Ethiopia	152	204	347	3.4	4.5	++	65	10	10	0	3
Kenya	250	++	500	2.6	2.5	0.0	100	22	55	0	6
Sudan	233	++	349	2.2	2.7	0.0	75	86	43	0	8
Zambia	240	++	300	3.3	14.7	15.7	99	150	90	60	4
Zimbabwe	176	++	353	3.1	4.7	8.9	100	160	80	40	5
North Africa											
Algeria	213	238	313	2.6	2.8	n.a.	10	12	18	18	73
West Asia											
Jordan	162	++	150	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Turkey	127	157	297	2.9	4.7	8.5	89	103	72	30	45
South Asia											
India	130	167	173	1.3	3.1	n.a.	96	127	59	0	12
Nepal	108	++	161	2.7	5.4	++	85	65	40	0	9
East Asia											
China	130	++	199	2.2	1.8	n.a.	95	180	105	28	13
Mexico, Central America, and the Caribbean											
Mexico	150	150	291	3.2	3.1	++	100	240	60	0	44
Andean Region, South America											
Bolivia	151	200	280	5.2	6.6	++	1	30	40	0	27
Colombia	189	++	255	2.4	4.1	16.6	69	36	27	9	23
Ecuador	270	++	400	1.8	3.0	8.9	60	40	80	40	8
Southern Cone, South America											
Argentina	105	120	500	5.0	7.2	++	50	46	23	0	113
Brazil	110	++	332	4.5	5.4	6.7	90	31	40	40	40
Chile	165	174	504	2.3	2.8	1.9	80	120	90	60	66
Uruguay	107	++	375	4.6	4.9	++	100	40	50	0	99
Eastern Europe and Former Soviet Union											
Bulgaria	462	525	798	4.2	n.a.	++	60	80	20	0	45
Western Europe, North America, and Other High-Income Countries											
Canada	105	136	981	5.7	16.0	++	54	62	17	0	494
Finland	118	++	454	7.4	96.8	64.5	100	120	9	14	513
France	92	112	490	5.6	10.7	7.9	99	158	63	70	660
Germany	109	142	512	5.3	18.7	18.7	100	173	78	125	801
Greece	134	136	545	3.3	13.1	n.a.	90	110	40	20	163
Italy	152	147	425	3.1	3.9	n.a.	93	123	69	45	569
Netherlands	105	++	1083	5.4	9.8	9.3	100	215	n.a.	n.a.	766
Portugal	104	111	210	4.3	n.a.	n.a.	100	95	60	50	255
Spain	120	114	126	3.6	3.0	n.a.	90	190	40	40	277
Switzerland	417	++	1087	2.1	2.2	n.a.	95	120	70	120	120

Note: ++ = not applicable; n.a. = not available.