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GAIN Report #UP2006

## Ukraine

### Grain and Feed

## How is Ukrainian Grain Competitive?

### 2002

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#### **Report Highlights:**

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**Average costs of production for Ukrainian wheat is currently about \$50 per metric ton. Barley is currently at about \$40 per metric ton. Ukrainian grain will likely continue to be shipped to international destinations this marketing year despite lingering infrastructural inefficiencies.**

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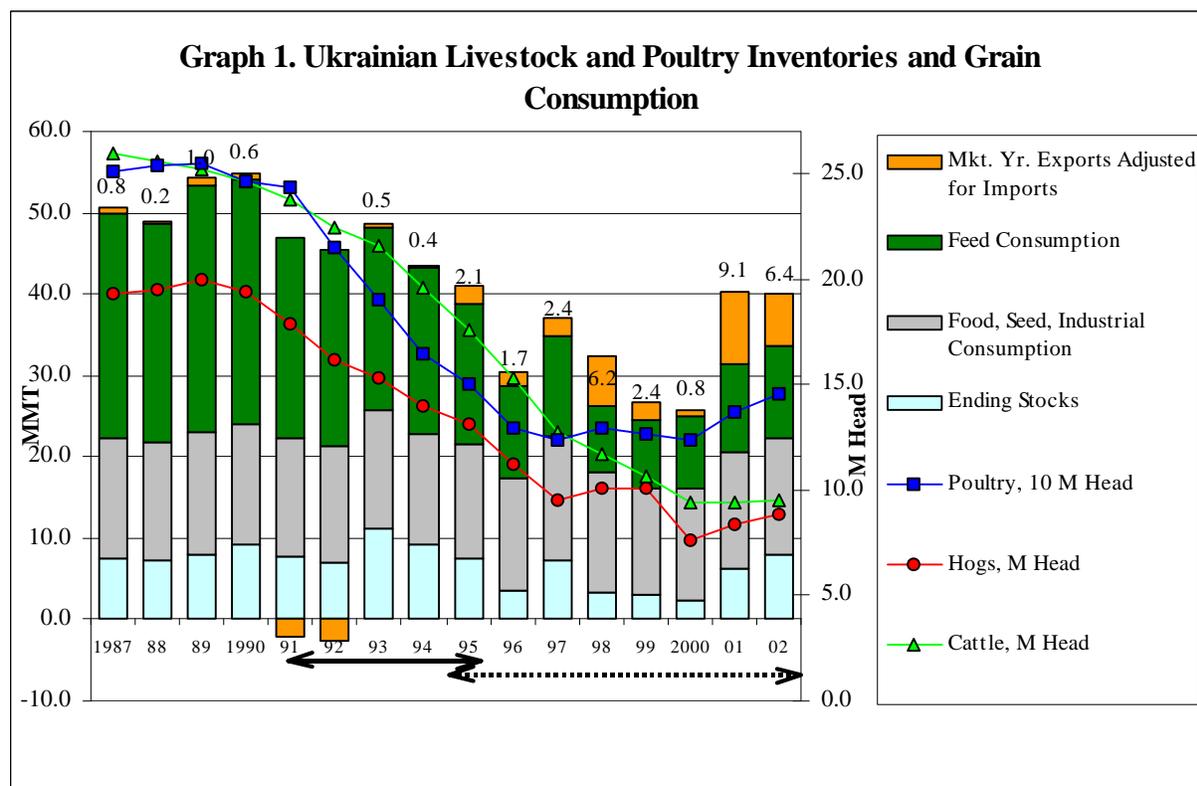
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## Executive Summary

Ukraine is back in the grain exporting business for the foreseeable future. Despite high market transaction costs, Ukrainian grain is competitive because Ukrainian farmers are producing grain at a relatively low cost. While production costs will likely increase beginning in crop year 2003, improvements and resulting efficiencies in port infrastructure and handling are expected to sustain the competitiveness of Ukrainian wheat and barley. Competitiveness will also depend upon policy changes made by the Government of Ukraine (GOU) to support farm income and reduce costs of exporting grain.

### How did Ukraine return to grain exporting?

Despite wide misconceptions, Ukraine was mainly a net grain importer during the Soviet era. The former “breadbasket of Europe” was transformed into a “meat and milk basket” under the Soviet Union and was responsible for the care and feeding of huge dairy, livestock and poultry operations.



Source: USDA PSD data for grains; State Statistics Committee of Ukraine for livestock and poultry inventories. Data for 2002 is estimated by Post. Adjusted export values are negative in 1991-92 reflecting Ukraine's net importer status.

Following independence in 1991, Ukraine's agricultural sector entered a decade of decline. Animal numbers dropped as Soviet farm subsidies, which had provided cheap inputs including fuel and protein feed, disappeared. Diminishing animal inventories freed up an exportable supply of feed grains. However, exports of this surplus grain were limited until 1994 when state

price controls were reduced and export restrictions, including export licences and quotas, were removed (see Graph 1).

Ukraine's highly inefficient livestock and poultry sectors were designed by the Soviets to function in a centrally planned economy. Following independence, the GOU tried to maintain animal inventories in 1991-92 by importing corn. However, herds and flocks could not be sustained as government subsidies for low-cost agricultural inputs and feed eventually were phased out due to budget constraints. Ukrainian farmers began reducing livestock and poultry inventories in reaction to lack of inputs, stiff competition from imported meat and poultry products, and a sharp decline in consumer purchasing power (**Graph 1: black arrow on left**).

Comparing 1995 inventories with 1990, cattle numbers were reduced by 30%, while swine and poultry inventories dropped by 32% and 40%, respectively. Lower domestic feed consumption allowed net grain exports to begin increasing in 1995. Exports took place despite reduced grain production due to drought in 1996, 1999 and 2000 (**Graph 1: dashed arrow on right**).

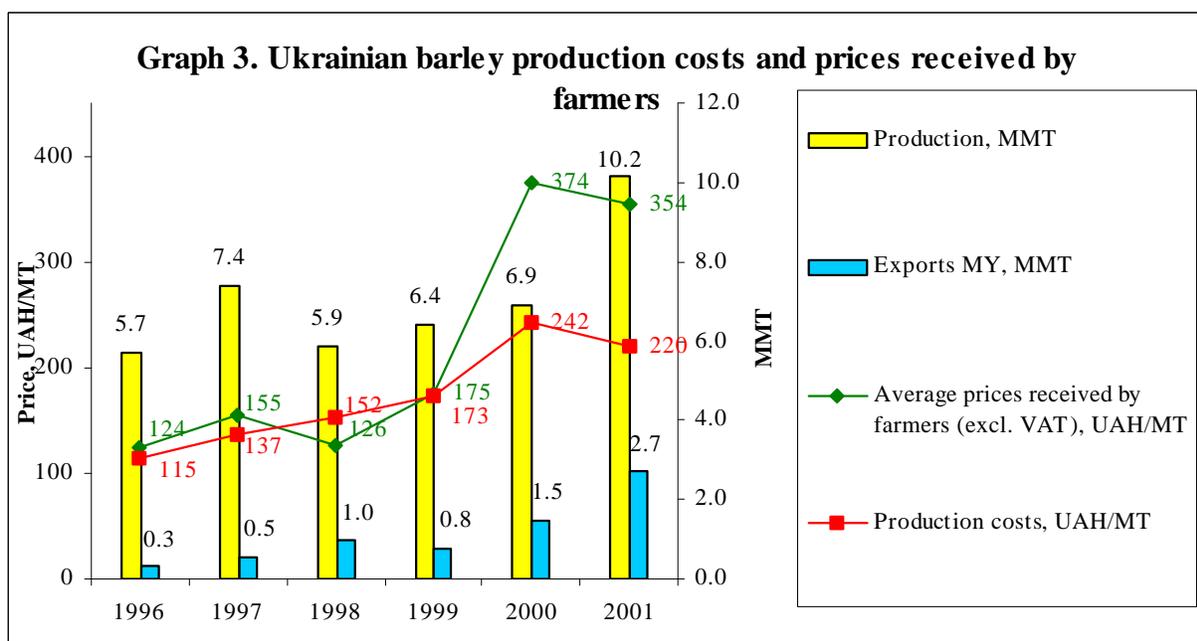
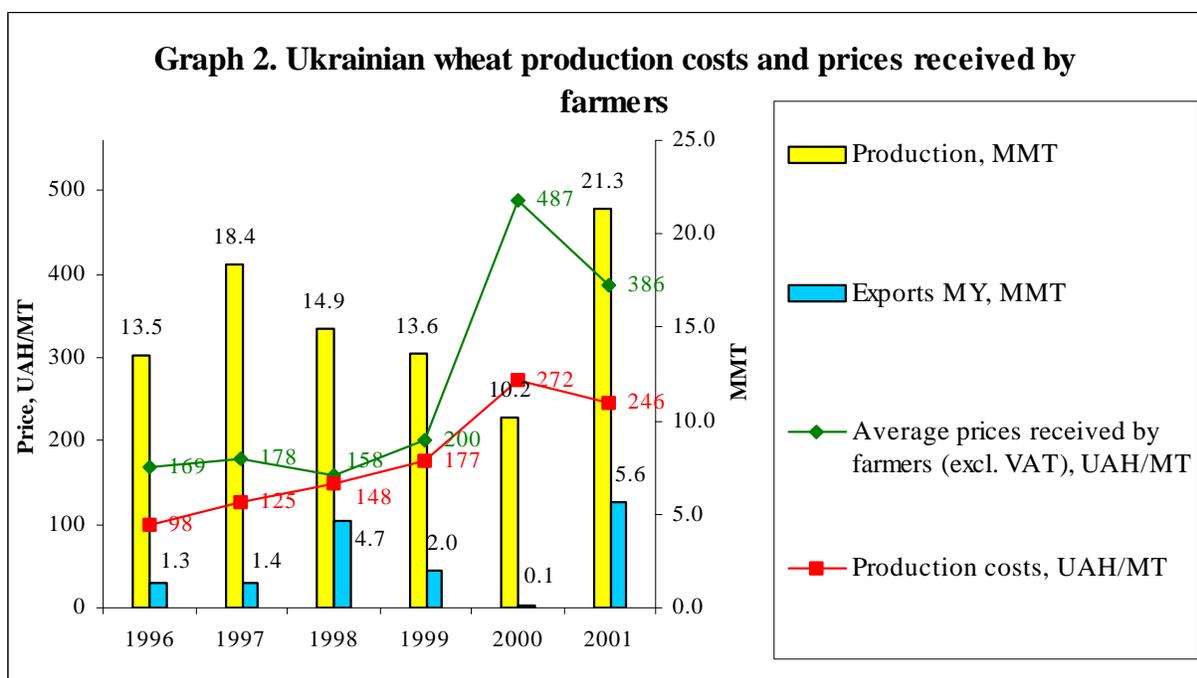
Swine and poultry inventories have been increasing since 2001. However, inventories are not expected to reach early 1990 levels for quite some time yet. The major limiting factor is that Ukrainian livestock and poultry producers are now in competition with grain exporters for feed and grain supplies. Feed demand is expected to play only a secondary role in the price formation process with export demand the major price determining factor.

### **How competitive are Ukrainian wheat and barley?**

Ukrainian milling and feed quality wheat, barley, and other feed grains are competitive and will remain competitive as long as farmers can sustain their relatively low cost of production. Low production costs enable grain traders to offset existing inefficiencies (i.e. high costs) of storage, transportation and other expenses. The continued competitiveness of Ukrainian grain on world markets will largely depend on the GOU's evolving grain policy.

Wheat and barley are the two major cereal crops. According to official data, production of these crops was profitable during 1996-2001, with the exception of barley in 1998 (see Graph 2 and 3). However, official production cost estimates do not account for fluctuating costs of agricultural inputs throughout the year. For example, the cost of farm inputs increased by 63% from September 1995 to July 1996 (the winter wheat production cycle), thus significantly reducing the officially recorded profit margin for 1996. Farmers did enjoy stable input prices and higher market prices during the 2001 crop year when input costs increased by only 5%. Nevertheless, 13% of the 11,791 large and middle-sized farms which produced wheat lost money last year.

**Costs of production have remained relatively unchanged in 2002 over the previous year. It is expected that the majority of farmers will see a profit despite an anticipated market price decline in MY 2002/2003.** One of the major factors which will force a drop in domestic prices, and thus reduce profits, is the GOU's failure to refund the value-added tax (VAT) to grain exporters. Uncertainty over the status of VAT refunds has already resulted in traders offering lower prices for grains this marketing year.



Data Source: State Statistics Committee of Ukraine. Average for all wheat and barley grades. Production cost for barley in 2001 is an estimate.

**Grain production costs, however, are anticipated to increase next year and beyond** as farmers will be required to purchase crop insurance, replace outmoded equipment, pay more for leased land and absorb expected fuel price increases. (A sample wheat production budget is provided in APPENDIX 1.)

Cereal farmers in Ukraine lease land from approximately 6 million landowners. Current leases for good quality arable land range from \$20 to \$25 per hectare. The GOU is under pressure to raise rural incomes. One method of doing so would be to increase the minimum lease rate for land, which would result in higher production costs.

Beginning with crop year 2003, the GOU will implement a mandatory insurance program for cereals. This new crop insurance program is expected to increase annual production costs by an estimated 1% to 5%.

**Long term competitiveness will depend on GOU policy decisions directed at reducing market transaction costs from the farm gate to the ports.** Costs associated with grain exports from Ukraine could be reduced if certain policies were implemented. For example, all tariffs related to railroad transportation, quality standards, PPQ issues, veterinary certificates for feed grains, ecological testing, inspections, port fees, and other variables are set by the GOU. Current estimates indicate that it costs approximately \$11-12 per metric ton to move grain from an inland elevator to a port (CPT basis). This cost includes inland elevator handling fees, certification, railroad tariffs and the freight forwarder's margin. It costs an additional \$6.50-12.50 per metric ton to move grain from CPT terms to FOB depending on the port and vessel type. **These costs are the major factor in the difference between the FOB and farm-gate price after Ukraine switched from wheat importing status to net exporter following the 2000 drought (see Graph 4).**

The costs of railroad tariffs, PPQ and veterinary certification, and mandatory quality certification are established by the GOU and are unlikely to be reduced in the near future. **Improvements in Ukraine's competitive position for grains in MY 2002/2003 are expected to come about from reduced port handling fees resulting from increased capacity and competition.**

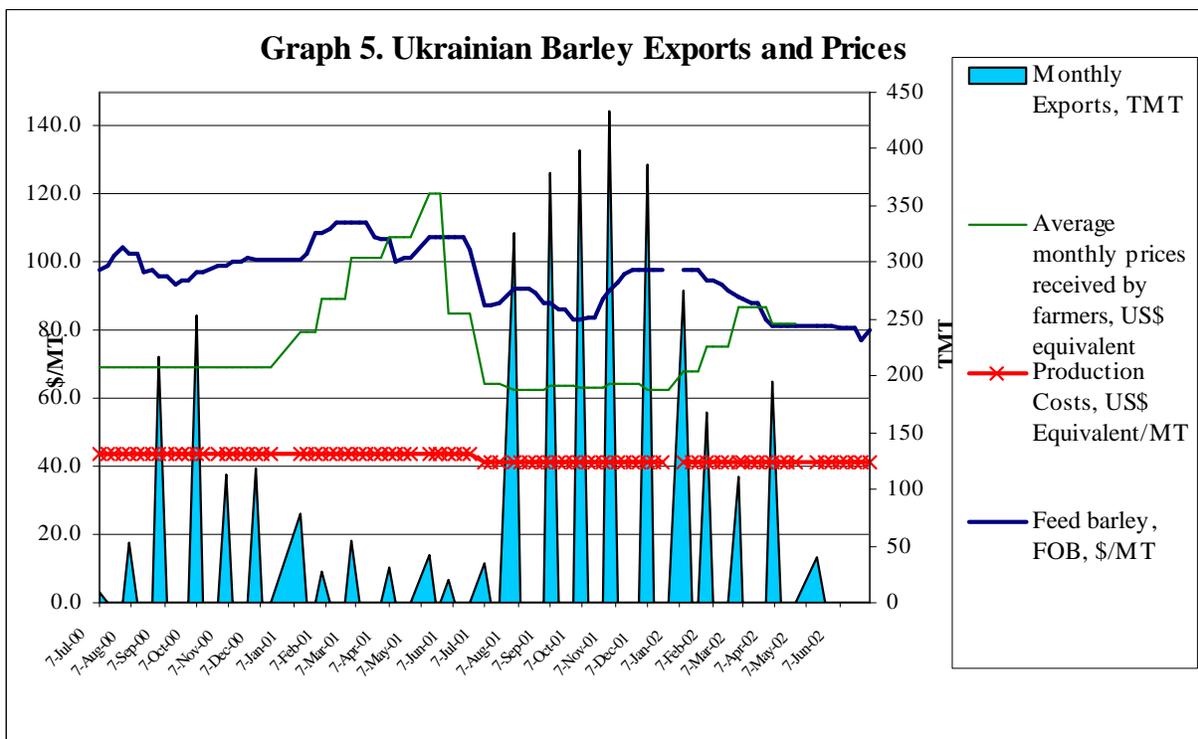
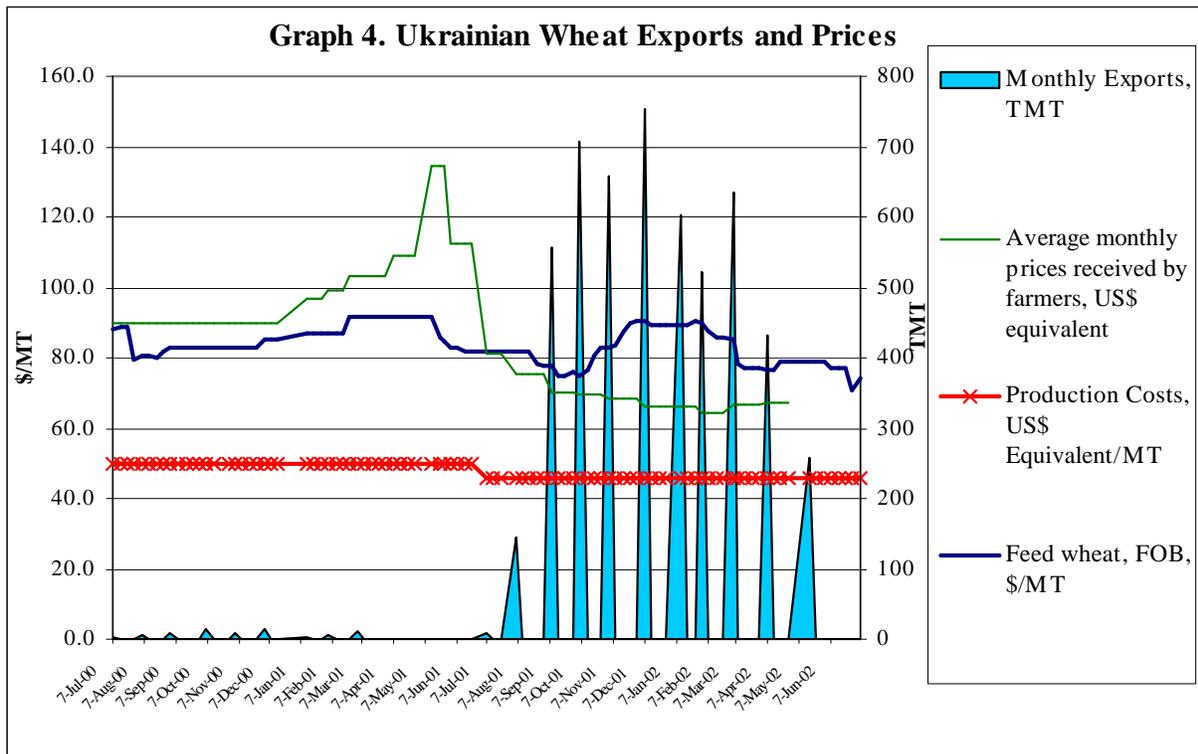
Ukraine's port capacity for grain exports will increase from an estimated 10 million metric tons (APPENDIX 2) to approximately 14 million metric tons by early 2003. Private companies have been actively investing in grain storage and port handling facilities.

Freight forwarders will likely lower port handling fees in MY 2002/2003 as they compete for dwindling exportable grain supplies. This will allow for a slight improvement in the competitive position of Ukrainian wheat and barley in international markets.

### **What quality of wheat will be exported?**

Early harvest reports for 2002 confirm that the quality of this year's Ukrainian wheat crop will be better than 2001. Ukraine's production of milling quality wheat exceeds domestic demand. Exports of this excess supply have already begun. The quantity of this year's milling quality wheat which has already been exported is estimated at about 25% of the total 5.3 million metric tons of exports in MY 2001/2002. **Given the high cost of grain transportation and handling, regardless of wheat quality, coupled with an increase in the supply of milling quality wheat, it is anticipated that milling quality wheat exports will increase in MY 2002/2003. The average protein content for exported wheat in 2001 was 11.5% (dry matter basis) with a test weight of 79 grams per liter (g/l) while the highest was above 14.5% with 85 g/l.**

Data Sources: Ukragroconsult Ltd, FOB prices; State Statistics Committee of Ukraine for average monthly prices



received by farmers (excl. VAT) and monthly wheat exports (all wheat grades).

**APPENDIX 1.****Winter wheat budget developed by the GOU in 2001 (assuming 3.5 MMT/Ha yield of milling quality wheat)**

Expenditures	Quantity	Price per unit	Cost, UAH/MT	Cost, US\$/MT
Labor, man-hours	14.3	2.15	30.75	5.73
Social security payments, 11%			3.54	0.66
Seeds, kg	63	0.46	28.98	5.40
Mineral fertilizers, NPK, active ingredient matter, kg	40	1.825	73.00	13.59
Organic fertilizers, mt	2	10	20.00	3.72
Plant Protection Chemicals	0.9	50	45.20	8.42
Fuel and Lubricants, kg	22	1.3	28.60	5.33
Electricity, kW/hour	4.6	0.188	0.86	0.16
Depreciation			31.6	5.88
Repair			12.6	2.35
Land Leasing Payments			37.4	6.96
Other expenditures			13.9	2.59
Loan interest rate				
Insurance				
Production Costs			326.43	60.79
Marketing Costs			32	5.96
Total Cost			358.43	66.75
Profit, %	8			
Inflation, %	7.2			
<b>Expected price to be received by farmers</b>			<b>412.91</b>	<b>76.89</b>

Exchange rate: UAH5.37/US\$1 (Average National Bank of Ukraine Exchange Rate in 2001).

The cost of mineral fertilizers and fuel is excluding VAT.

The table above does not include the fixed agricultural tax – UAH 25.00 per 1 ha of arable land.

**APPENDIX 2. Estimated Capacity of the Ukrainian Black Sea Ports to Export Grain**

Port	TMT per Month	Months per Season	Season, TMT
Mariupil	70	8	560
Berdyansk	20	8	160
Kerch	20	8	160
Kherson	80	9	720
Mykolaiyv	100	10	1000
Odessa City	150	10	1500
Yuzhny	200	10	2000
Illichivsk City	300	10	3000
"Fish Port", Illichivsk	30	8	240
Ismail	40	8	320
Ust Dunaysk	50	8	400
<b>Total</b>	<b>1060</b>		<b>10060</b>

Source: Interviews with Grain Traders and Freight Forwarders. As of July 2002.

## Rates of Mineral Fertilizer Application, Production and Yields of Wheat and Corn

Kilograms of active ingredient (NPK) applied to 1 hectare of area planted with :	1990	1997	1998	1999	2000	2001
- Winter and spring wheat	149	40	45	34	24	33
- Corn	250	25	19	19	14	27
Production and Yields						
Wheat (total), 1,000 MT	30374	18404	14937	13585	10197	21318
Wheat yields, MT/1 Hectare	4.0	2.83	2.65	2.29	1.98	3.10
Corn, 1,000 MT	4737	5340	2300	1737	3848	3635
Corn yields, MT/1 Hectare	3.87	3.26	2.53	2.52	3.01	3.23

Data source: State Statistics Committee of Ukraine