

Supplementary Table S1: Nitrogen taken by plants and N added to each N-min plot in the N trial (N kg/ha)

Cultivar	Rep.	N taken 2001/02	N added 2001/02	N taken 2002/03	N added 2002/03	N taken 2004/05	N added 2004/05	N taken 2005/06	N added 2005/06
Jet Nuf	1	60.9	84.3	55.8	93.1	42.4	45.7	111.6	21.1
	2	65	80.2	45.4	103.5	23.4	64.7	90.8	42
	3	50.2	95	52.8	96	14.5	73.6	105.7	27.1
	4	33.6	111.5	27.5	121.4	14.3	73.8	55	77.8
Falcon	1	71.9	72.5	47.8	64.1	42.6	72.7	95.6	40.9
	2	33.1	111.3	53	59	18.3	97	105.9	30.6
	3	58.8	85.6	61.8	50.1	13	102.2	123.7	12.8
	4	57.8	86.5	40.3	71.7	20.8	94.5	80.5	56
Banaćanka	1	39	88.1	20.5	107.8	36.6	61.8	41	90.2
	2	36.6	90.5	60.9	67.5	25.9	72.5	121.7	9.5
	3	28.1	99	27.8	100.6	8.6	89.8	55.5	75.7
	4	57.3	69.7	37.6	90.8	8.2	90.2	75.2	56.1
Samourai	1	45.9	94.6	82.2	25.7	38.5	67	164.3	0
	2	45.8	94.7	49.5	58.4	47.8	57.7	98.9	23.1
	3	57.9	82.6	43.6	64.2	34.1	71.4	87.3	34.8
	4	50	90.5	58.4	49.4	15.3	90.2	116.8	5.2
Average for the season		49.5	89.8	47.8	76.5	25.3	76.6	95.6	37.7

Supplementary Table S2: Climatic variables calculated based on daily values for the duration of each of the five studied development stages in the sowing date trial. Second stage represents joined GS1+GS2 stages of Seedling and Rosette

Climatic factor	Climatic variable	SD1 2001/02	SD2 2001/02	SD3 2001/02	SD1 2002/03	SD2 2002/03	SD3 2002/03	SD1 2004/05	SD2 2004/05	SD3 2004/05	SD1 2005/06	SD2 2005/06	SD3 2005/06
Max. temp. (°C)	mx1	31.3	25.2	28.1	30.9	30.4	30.4	31.6	31.6	27.2	29.3	27.4	24.2
	mx2	28.4	28.4	28.4	26.4	26.4	26.4	24.3	24.3	24.3	24.9	24.9	24.9
	mx3	21.6	21.6	21.6	21.1	21.1	23.4	22.5	22.5	22.5	20.7	21.8	20.7
	mx4	28.7	28.7	28.7	33.8	33.8	33.8	29.9	29.9	29.9	24.5	24.5	24.5
	mx5	37.6	37.6	37.6	36.3	36.3	36.3	32.4	32.4	32.4	34.5	34.5	34.5
Min. temp. (°C)	mn1	7.0	6.1	6.1	5.8	5.8	4.8	3.9	3.9	6.6	10.0	10.0	9.4
	mn2	-19.1	-19.1	-19.1	-25.0	-25.0	-25.0	-24.2	-24.2	-24.2	-13.8	-13.8	-13.8
	mn3	-4.2	-4.2	-4.2	2.9	2.9	2.9	1.0	1.0	1.0	3.6	3.6	3.6
	mn4	-4.2	-4.2	4.3	4.0	4.0	5.8	1.0	1.0	1.0	5.2	5.2	5.2
	mn5	8.3	3.4	8.3	5.0	5.0	5.0	7.5	7.5	7.5	6.1	6.1	6.1
Mean temp. (°C)	mt1	16.9	14.3	15.2	17.6	16.8	14.5	16.2	14.7	13.7	17.4	15.3	14.6
	mt2	5.9	5.4	5.0	4.2	4.2	4.1	4.6	4.3	4.3	4.9	4.8	4.3
	mt3	8.4	8.4	7.9	12.7	12.7	13.4	11.6	11.6	11.6	12.4	12.2	13.0
	mt4	13.4	13.5	14.0	21.2	21.2	21.8	14.6	14.6	14.6	14.6	14.4	14.5
	mt5	20.6	20.7	20.7	22.0	22.1	22.2	19.6	19.6	19.6	18.8	18.8	19.2
Min. temp. 5cm (°C)	mn5cm1	5.0	4.6	4.2	2.2	2.2	2.2	0.3	0.3	4.7	7.9	9.6	7.2
	mn5cm2	-20.7	-20.7	-20.7	-25.5	-25.5	-25.5	-24.0	-24.0	-24.0	-16.4	-16.4	-16.4
	mn5cm3	-9.0	-9.0	-9.0	0.3	0.3	0.3	-4.5	-4.5	-4.5	2.8	2.8	2.8
	mn5cm4	-9.0	-9.0	1.8	1.3	1.3	1.3	-4.5	-4.5	-4.5	0.2	0.2	0.2
	mn5cm5	3.6	3.6	3.6	1.8	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3
Precipi- tation (mm)	pr1	118.2	148.4	42.4	54.8	46.3	52.1	47.9	43.3	37.6	55.6	47.2	14.7
	pr2	216.9	163.3	159.7	240.9	244.0	233.6	387.1	381.4	381.4	295.5	276.2	287.2
	pr3	0.0	0.0	2.1	2.4	2.4	2.8	15.3	10.7	10.7	40.3	39.7	21.0
	pr4	35.4	35.4	35.4	2.6	2.6	2.5	52.3	52.3	52.3	15.6	17.2	28.3
	pr5	101.3	96.8	107.2	34.0	36.7	36.7	168.2	191.8	191.8	163.4	163.4	157.4
Relative Humidity (%)	rh1	77.4	83.6	81.8	71.7	72.4	76.9	73.6	78.4	83.7	81.5	86.7	85.2
	rh2	78.8	78.7	78.4	78.1	78.3	78.0	81.2	81.1	81.1	80.7	80.6	80.3
	rh3	57.3	57.3	60.5	59.3	59.3	58.3	72.1	70.5	70.5	77.9	77.6	78.1
	rh4	69.9	69.5	70.5	51.4	51.4	50.2	68.1	68.1	68.1	68.3	69.5	68.8
	rh5	65.2	64.7	64.6	62.2	61.7	61.5	68.8	69.3	69.3	72.8	72.8	72.6

