

Rice phenological phases and their nutrition requirements

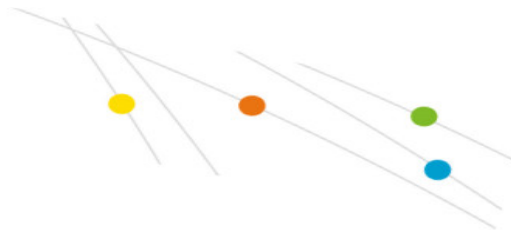
Nutrients removal by a rice crop (cv. IR36) yielding 9,8 MT/ha of rough rice grains and 8,3 MT/ha of straw

Plant nutrients <i>Nutrientes de la planta</i>	Amounts of nutrient removed (at harvest) / <i>Cantidad de nutrientes removidos (en cosecha)</i>				
	Straw / <i>Paja</i>		Grain / <i>Grano</i>		Total
	kg/ha	%	kg/ha	%	kg/ha
N	75	21	143	70	218
P	5	1	25,5	12	30,5
K	232	65	26	13	258
Ca	27	7	1	0	28
Mg	13	4	10	5	23
S	3,3	0,2	0,5	0,2	3,8

Nutrients removal by a high yielding rice variety ('IR64'), 12 MT/ha rough rice grains and 8,3 MT/ha of straw, by 2 - 3 crops per year.

Plant nutrients <i>Nutrientes de la planta</i>	Amounts of nutrient removed (at harvest) / <i>Cantidad de nutrientes removidos (en cosecha)</i>				
	Straw* / <i>Paja*</i>		Grain / <i>Grano</i>		Total
	kg/ha	%	kg/ha	%	kg/ha
N	63	20	137	63	200
P	10	3	24	11	34
K	168	53	36	17	204
Ca	46	14	6	3	52
S	31	10	13	6	44

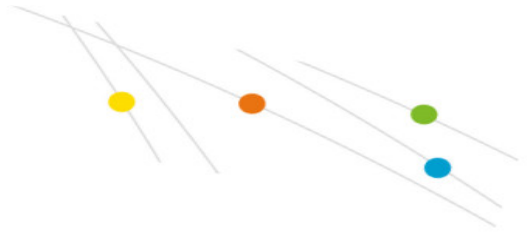
Removal of Si and K₂O are particularly large if panicles and straw are taken away from the field at harvest. However, if only the grains are removed, and the straw is returned and incorporated back into the soil, the removal of Si and K₂O is greatly



reduced, although significant amounts of N and P_2O_5 are still removed.

Optional mineral nutrition schedule for field-grown rice at expected yield of 7-10 MT/ha.

Phenological stage <i>Fase fenológica</i>	Days after transplanting <i>Días después de transplante</i>	Physical application rates (kg/ha) <i>Tasa de aplicación física (kg/ha)</i>						Proportional application rates <i>Tasas proporcionales de aplicación</i>			
Pre-planting <i>Pre-siembra</i>	-20	N	45	P_2O_5	42	N	1	P_2O_5	1		
		K ₂ O	42	CaO	18	K ₂ O	1	CaO	0,43		
		MgO	7	S	8	MgO	0,17	S	0,18		
Transplanting <i>Transplante</i>	0										
Transplant establishment <i>Establecimiento de transplante</i>	0 - 14										
Active tillering <i>Labranza activa</i>	20 - 30	N	66	P_2O_5	6	N	1	P_2O_5	0,1		
		K ₂ O	97	CaO	3	K ₂ O	1,5	CaO	0,05		
		MgO	2	S	5,6	MgO	0,03	S	0,09		
Panicle initiation <i>Iniciación de la panícula</i>	35 - 50	N	15	P_2O_5	19	N	1	P_2O_5	1,3		
		K ₂ O	49			K ₂ O	3,3				
Heading	60 - 70										
Grain filling <i>Relleno de grano</i>	80 - 100										
Harvest <i>Cosecha</i>	110 - 130										
Total application rate (kg/ha) <i>Tasa total de aplicación (kg/ha)</i>		N	126	P_2O_5	67	N	1	P	0,53		
		K ₂ O	188	CaO	21	K	1,5	Ca	0,17		
		MgO	9	S	13	Mg	0,07	S	0,10		



-RICE

