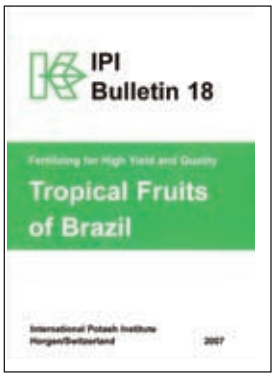
Tropical Fruits of Brazil
Publication Available from IPI



The International Potash Institute (IPI) has released a new 233-page bulletin titled *Fertilizing for High Yield and Quality: Tropical Fruits of Brazil.* It discusses the cultivation, mineral nutrition, and fertilization of 11 widely grown perennial, tropical fruits. Brazil is one of the world's major producers of tropical fruit. While much of the information and data is from Brazil, there are also cross references to production systems in other tropical climates…making the observations applicable to other parts of the world. The book is in English.

Content of the bulletin features 11 tropical fruits: acerola, banana, cashew, citrus, coconut, guava, mango, papaya, passion-fruit, pineapple, and soursop. Each chapter contains a brief overview of the geography of the area where the fruit is grown, the characteristics of the climate and soil, and recommendations for soil preparation and amelioration. The function of each nutrient for the given fruit is discussed, and a description of the visible symptoms caused by their deficiency provided. The authors emphasize fertilization practices for the various phases of plant development from nursery to production, with particular attention to irrigation (including fertigation).

The original version of the book (in Portuguese) was edited by Dr. Lindbergue Araújo Crisóstomo, EMBRAPA Center for Tropical Agro-Industry at Fortaleza (Brazil), together with Dr. Alexey Naumov, IPI Coordinator for Latin America and Associate Professor at the Faculty of Geography of Lomonosov Moscow State University (Russia). The English version is edited by A.E. Johnston of Rothamsted Research at Harpenden (United Kingdom).

The book (Bulletin No. 18: Tropical Fruits of Brazil) is available for purchase at US$14.00. To order a copy, look for "publications" at the IPI website: **>http://www.ipipotash.org/publications/detail.php?i=245<** BC

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is a very important measure to maintain the sustainability of agricultural development. 2) Nutrient application should pay attention to crop rotation and crop sequence. Thus, N should be applied within each non-legume cropping season, while P application in one cropping season may be enough to fulfill the requirements for the wheat and maize grown. 3) Best management practices for fertilizer should consider integration of fertilizer, water, and other cultivation practices. BC

Table 6. Responses of nutrient uptakes of four crops to successively fixed fertilization in the rotation of wheat and maize in 2005-2007.

	Nutrient uptake in 2005-2006, kg/ha						Nutrient uptake in 2006-2007, kg/ha					
	Wheat (first crop)			Maize (second crop)			Wheat (third crop)			Maize (fourth crop)		
Treatments	N	P	K	N	P	K	N	P	K	N	P	K
OPT	163	31	147	191	23	189	184	28	194	209	27	148
OPT-N	104	23	88	105	16	118	59	12	69	100	15	90
OPT-P	158	26	143	182	19	154	151	20	148	214	23	131
OPT-K	150	27	141	188	22	180	182	26	176	212	25	130
OPT-Zn	159	28	143	171	20	180	172	27	176	209	24	138
CK0	97	21	82	83	12	109	75	16	65	101	17	91
Efficiency[1], %	33	8	4	44			69	12	11	56		
Efficiency[2], %				39	14	9				62	17	21

Efficiency[1] denote the nutrient use efficiency of a single crop; Efficiency[2] denote the nutrient use efficiency of the wheat/maize rotation.

Table 7. Balance sheet of nutrients of four crops (two rotations) from 2005 to 2007.

	Nutrient uptake, kg/ha			Nutrient input, kg/ha			Balance, kg/ha		
Treatments	N	P	K	N	P	K	N	P	K
OPT	747	109	678	750	132	332	3	23	-346
OPT-N	368	66	364	0	132	332	-368	66	-32
OPT-P	705	89	576	750	0	332	45	-89	-244
OPT-K	732	101	627	750	132	0	18	31	-627
OPT-Zn	712	100	637	750	132	332	38	32	-305
CK0	357	66	346	0	0	0	-357	-66	-346

Dr. H. Wang, Mr. B. Wang, Ms. Zhao, and Ms. Guo are with the Soil and Fertilizer Institute, Shanxi Academy of Agricultural Science, 16 Nongke North Road, Taiyuan, 030031, China; e-mail: htwangwb@public.ty.sx.cn. Dr. He is Deputy Director, IPNI China Program, and Professor, Soil and Fertilizer Institute, Chinese Academy of Agricultural Science, 12 South Zhongguancun Street, Beijing 100081, China. E-mail: phe@ipni.net.
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