

เอกสารอ้างอิง

- เมญจารณ ฤกษ์เกย์น. 2537. โปรดอนในการผลิตถั่วในภาคเหนือ. วารสารคินและปุ๋ย. 16: 130-154.
- เมญจารณ ฤกษ์เกย์น และ ศันสนีย์ จำจด. 2532. การแก้ปัญหารวงลีบเนื่องจากการขาดโปรดอนในข้าวสาลีและข้าวบาร์เดย์. วารสารคินและปุ๋ย. 11: 200-209.
- ไพบูลย์ พงษ์สกุล, ทรสันะ ลากวย และนคร แสงปลื้ง. 2540. การส่งเสริมการปลูกขัญพืชเมืองหนาว. เอกสารประกอบการสอนนาประชุมวิชาการขัญพืชเมืองหนาวแห่งชาติ ครั้งที่ 18. วันที่ 27-29 มกราคม 2540. ณ โรงแรมโพธิฯ. ขอนแก่น. หน้า 161-185.
- เพ็มพูน กีรติกสิกร. 2537. ผลงานวิจัยอาหารเสริมกับพืชกระถุกถั่วที่เป็นอาหารในภาคตะวันออกเฉียงเหนือ. วารสารคินและปุ๋ย. 16: 155-167.
- Ambak, K. and Tadano, J. 1991. Effect of micronutrient application on the growth and occurrence of sterillity in Barley and rice in a Malaysian deep peat soil. Soil Sci. Plant Nutr. 37: 715-724.
- Barr, R. D., Clarke, W. B., Clarke, R. M., Venturelli, J., Norman, G. R. and Dowling, R. G. 1993. Regulation of lithium and boron levels in normal human blood: Environmental and genetic factors. J. Lab. Clin. Med. 121: 614-619.
- Birnbaum, E. H., Beasley, C. A. and Dugger, W. M. 1974. Boron deficiency in unfertilized cotton (*Gossypium hirsutum*) ovules grown in vitro. Plant Physiol. 54: 931-935.
- Blamey, F. P. C., Mould, D. and Chapman, J. 1979. Critical boron concentration in plant tissues of two sunflower cultivars. Agron. J. 71: 243-247.
- Broughton, W. J. and Dilworth, M. J. 1971. Control of leghaemoglobin synthesis in snake beans. Biochem. J. 125: 1075-1080.
- Brown, P. H. and Shelp, B. J. 1997. Boron mobility in plant. Plant and Soil 193: 85-101.
- Cheng, C. and Rerkasem, B. 1993. Effect of boron on pollen viability in wheat. Plant and Soil. 155/156: 313-315.
- da Silva, A. R. and de Andrade, J. M. V. 1980. A Cultura do Trigo nas Varzeas de Minas Gerais – possibilidades e dificuldades. Embrapa, Centro de Pesquisa Agropecuaria dos Cerrados – CPAC. Circular Tecnica no. 2. 69 p. (In Portuguese)
- Dugger, W. M. and Palmer, R. L. 1985. Effect of boron on the incorporation of glucose by cotton fibers grown *in vitro*. J. Plant Nutr. 8: 311-325.
- Garg, O. K., Sharma, A. N. and Kona, G. R. S. S. 1979. Effect of boron on the pollen vitality and yield of rice plants (*Oryza sativa* L. var. Jaya). Plant and Soil 52: 591-594.

- Goldbach, H. E., Hartmann, D. and Rötzer, T. 1990. Boron is required for the stimulation of the ferric cyanide-induced proton release by auxins in suspension culture cells of *Daucus carota* and *Lycopersicon esculentum*. *Physiol. Plant.* 80: 114-118.
- Gupta, U. C. 1979. Boron nutrition of crops. *Adv. Agron.* 31, 273-307.
- Hirsch, A. M. and Torrey, J. G. 1980. Ultrastructural changes in sunflower root cells in relation to boron deficiency and added auxin. *Can. J. Bot.* 58: 856-866.
- Hu, H. and Brown, P. H. 1994. Localization of boron in cell wall of squash and tobacco and its association with pectin – Evidence for a structural role of boron in the cell wall. *Plant Physiol.* 105: 681-689.
- Jamjod, S. and Rerkasem, B. 1999. Genotypic variation in response of barley to boron deficiency. *Plant and Soil* 215: 65-72.
- Kamali, A. and Childers, N. F. 1970. Growth and fruiting of peach in sand culture as affected by boron and a fritted form of trace elements. *J. Amer. Soc. Hort. Sci.* 95: 652-656.
- Kirk, G. J and Loneragan, J. F. 1988. Functional boron requirement for leaf expansion and its use as a critical value for diagnosis of boron deficiency in soybean. *Agron. J.* 80: 758-762.
- Li, B. H., Li, W. H., Kui, M. C., Chao, W. S., Jern, H. P., Li, C. R., Chu, W. J. and Wang, C. L. 1978. Studies on cause of sterility of wheat. *Journal of Northeastern Agricultural College* 3: 1-19. (*in Chinese with English translation*)
- Loomis, W. D. and Dust, R. W. 1992. Chemistry and biology of boron. *Biofactors* 3: 229-239.
- Marschner, H. 1995. *Mineral Nutrition of Higher Plants*. 2nd ed. Academic Press, London. 889 p.
- Matoh, T., Ishigaki, K-I., Mizutami, M., Matsunaga, W. and Takabe, K. 1992. Boron nutrition of cultured tobacco BY-2 cells I. Requirements for an intracellular localisation of boron and selection of cells that tolerate low levels of boron. *Plant Physiol.* 33: 1135-1141.
- Misra, R., Munankarmi, R. C., Pandy, S. P. and Hobbs, P. R. 1992. Sterility work in wheat at Tarahara in the eastern Terai of Nepal. *In* Boron Deficiency in wheat. Eds. C. E. Mann and B. Rerkasem. pp. 65-71. *Wheat Spec. Rep.* 11, CIMMYT, Mexico.
- Mozafar, A. 1993. Role of boron in seed production. *In* Boron and its Role in Crop Production. Ed. U. C. Gupta. pp. 186-206. CRC Press: Boca Raton, FL, USA.
- Parr, A. J. and Loughman, B. C. 1983. Boron and membrane function in plants. *In* Metals and Micronutrients, Uptake and Utilization by Plants. Eds. D. A. Robb and W. S. Pierpoint. pp. 87-107. Academic Press, New York.

- Rajaratnam, J. A. and Lowry, J. B. 1974. The role of boron in the oil-palm (*Elaeis guineensis*). Ann. Bot. (London) [N. S.] 38: 193-200.
- Rerkasem, B. and Jamjod, S. 1997. Boron deficiency induced male sterility in wheat (*Triticum aestivum* L.) and implications for plant breeding. Euphytica 96: 257-262.
- Rerkasem, B. and Loneragan, J. F. 1994. Boron deficiency in two wheat genotypes in a warm, subtropical region. Agron. J. 86: 887-890.
- Rerkasem, B. and Lordkaew, S. 1992. Predicting grain set failure with tissue boron analysis. In Boron Deficiency in Wheat. Eds. C. E. Mann and B. Rerkasem. pp. 9-14. Wheat Spec. Rep. 11, CIMMYT, Mexico.
- Rerkasem, B., Lordkaew, S. and Dell, B. 1997. Boron requirement for reproductive development in wheat. Soil Sci. Plant Nutr. 43: 953-957.
- Rerkasem, B., Suanders, D. A. and Dell, B. 1989. Grain set failure and boron deficiency in wheat. J. Agric. (Chiang Mai University) 5: 1-10.
- Rerkasem, B., Bell, R. W., Lordkaew, S. and Loneragan, J. F. 1993. Boron deficiency in soybean [*Glycine max* (L.) Merr.], peanut (*Arachis hypogaea* L.) and black gram [*Vigna mungo* (L.) Hepper]; Symptoms in seeds and differences among soybean cultivars in susceptibility to boron deficiency. Plant and Soil 150: 289-294.
- Schmucker, T. 1934. Über den einfluss von Borsäure auf Pflanzen, insbesondere keimende Pollenkörner. Planta 23: 264-283.
- Shelp, B. J. and Shattuck, V. I. 1987. Boron nutrition and mobility, and its relation to elemental composition of greenhouse grown root crops. I. Rutabega. Comm. Soil Sci. Plant Anal. 18: 187-201.
- Shelp, B. J., Penner, R. and Zhu, Z. 1992. Broccoli (*Brassica oleracea* var *italica*) cultivar response to boron deficiency. Can. J. Plant Sci. 72: 883-888.
- Shen, Z., Zhang, X., Wang, Z. and Shen, K. 1994. On The relationship between boron nutrition and development of anther (pollen) in rapeseed plant. Scientia Agric. Sinica 27: 51-56.
- Simojoki, P. 1972. Boron deficiency, pollen sterility and ergot disease of barley. Ann Agric Fenn 11; 333-341 (in Finish with English summery).
- Singh, H. M., Sinha, S. D. and Prasad, R. B. 1976. Effect of Boron on seed setting in wheat under North Bihar conditions. Indian J. Agron. 21: 100-101.
- Spurr, A. R. 1957. The effect of boron on cell-wall structure. Am. J. Bot. 44: 637-650.

- Subedi, K. D., Budhathoki, C. B., Subedi, M. and Tuladhar, J. K. 1993. Survey and research report on wheat sterility problem (1992/93). LARC Working Paper No. 93/94. Nepal, Lumle Agricultural Research Centre.
- Vaughan, A. K. F. 1977. The relation between the concentration of boron in the reproductive and vegetative organs of maize plants and their development. Rhod. J. Agric. Res. 15: 163-170.
- Venter, H. A. van de and Currier, H. B. 1977. The effect of boron deficiency on callose formation and ¹⁴C translocation in bean (*Phaseolus vulgaris*) and cotton (*Gossypium hirsutum* L.). Am. J. Bot. 64: 861-865.
- Whittington. 1957. The role of boron in plant growth. II. The effect on growth of the radicle. J. Exp. Bot. 10: 93-103.
- Zhang, X., Shen, Z. and Shen, K. 1994. The effect of boron on the development of floral organs and seed yield of rape. Acta Pedological Sinica 31: 146-151.