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Cover image: Research on cacao production, such as this cocoa tree growing under experimental greenhouse conditions, is identifying bioactive substances, such as polyphenols present in cocoa, that may have nutritional properties. The relationship of bioactive food components to T-cell immune functions is the subject of a review in this issue, see page 1 of this issue (J. Nutr. 138: 1–4, 2008). Photo courtesy of the USDA/ARS (Sustainable Perennial Crops Lab).