

## 1. INTRODUCTION

Wheat is commonly grown after wet season rice predominantly in India, Pakistan, Nepal, Bhutan, Bangladesh, Burma and China. Over the past decade, there has been an interest in expanding this cropping pattern to nontraditional wheat growing areas in Southeast Asia; including the Philippines, Indonesia and Thailand. This is mainly due to increasing consumption and importation of wheat in this region (Saunders, 1987 and Ferrara *et al.*, 1987). The size and cost of wheat importations prompted the governments of most Southeast Asian countries to express interest in domestic wheat production, particularly under lowland warmer conditions (Aggarwal *et al.*, 1987 and Aggarwal, 1988).

Although there is considerable interest in expanding wheat cultivation into the lowland hotter tropics, it is not clear how the wheat crops would tolerate the high temperatures experienced. The effect of high temperature is probably the hastening of phenological development thus shortening successive development phases during which the various components of the grain yield are determined (Midmore *et al.*, 1982 and Rawson, 1986). Aside from high air temperature effects, wheat may also establish poorly because of high soil temperature (Fischer, 1984). Growth and development of wheat are also significantly influenced by surface soil temperatures (Boatwright *et al.*, 1976; Kuroyanagi and Paulsen, 1988). Mulching has been observed to alleviate these problems by enhancing wheat emergence (Tripathi *et al.*, 1985) and