Gomal Univ.J.Res.(A) 15(1): 149-154, 1995 [Printed in Dec. 1996] ISSN 1019-8180

EFFECT OF DIFFERENT QUANTITIES OF GYPSUM AND LIME IN WHEAT GRAIN FOR THE SPAWN PREPARATION OF BUTTON MUSHROOM

HAFIZULLAH BURKI*, MUHAMMAD MUNIR*
AND TAHIR REHMAN**

* Department of Horticulture, Faculty of Agriculture, Gomal University, D.I.Khan.
** National Agricultural Research Centre, Islamabad.

ABSTRACT

The research was conducted in the Mushroom Culture Lab:, NARC, Islamabad during 1994-95. Four levels of gypsum and lime (2, 4, 6, and 8%) excluding control were tested to find out the best one for the multiplication of spawn. Spawn were prepared on wheat grains and the best results were obtained by 6% gypsum and 4% lime.

INTRODUCTION

Button mushroom (*Agaricus bisporus*) belongs to the family Agaricaceae. These are liked all over the world due to their delicate taste, flavour and health giving properties and considered as a balanced food. Fortunately our country has been gifted with four distinct season which are favourable for the cultivation of different types of crops, that also produce large amount of agricultural wastes. These agricultural wastes can be used as bedding materials for the cultivation of button mushroom. Moreover, other materials like gypsum, lime etc. are also in abundance which are commonly mixed with different composts. The main object of this study was to find out optimum level of gypsum and lime for the spawn preparation on wheat grain compost.

Hein (1930) prepared the wheat straw compost by adding manure from old spent mushrooms beds, ammonium nitrate, ammonium sulphate, ammonium phosphate and lime. All substrate showed good mycelial growth. Waksman and Selman (1939) found that cereal straw supplemented with mineral salt and calcium carbonate or slaked lime to be an excellent compost. Gerrits (1974) recommended the compost with 1000 kg each of chopped wheat straw and chicken manure, 60 kg of gypsum and over 5000 litre water. Shandilya (1979) obtained best results on the compost comprising horse manure, wheat straw, chicken manure, grain, urea and gypsum for button mushroom. The results reported by Bisht and Harsh (1984) revealed that the waste tea leaves have shown good response