

## SUMMARY

ARUMBINANG WAJDI. 0710460027-46. 3 Varieties and 8 Grooves of maize Endurance' Level to Downey Mildew Disease (*Peronosclerospora maydis* Rac.). Supervised by Dr. Ir. Syamsuddin Djauhari, Ms. And Dr. Anton Muhibuddin, SP. MP.

Maize (*Zea Mays* L.) is an important food commodity and occupy second sequence after paddy in Indonesia. Requirement of maize, will increase along with growth of resident and progress of industrial sector exploiting especial standard maize upon which. To fulfill requirement of maize will hence to process conducting. But in course of maize conducting, many resistor factor. Disease represent one of the resistor of efficacy of farmer. One of the most important disease of maize crop is downey mildew, which because of patogen *Peronosclerospora maydis*. Usage of endurance variety hold up to be assessed easy as mode practical and by farmers. This matter have exploited by seed producers, compete to make new endurance variety to downey mildew disease and have ability of high production. Intention of this research is to know endurance of grooves and varieties of maize to downey mildew disease.

Spacious research executed from 2 September 2010 until 14 January 2011 in orchard of Ngeblak, countryside of Pelem, district of Pare. Perception of laboratory executed from 14 Januari until 20 Februari 2011 in Disease lab's of Majors Pest and Disease Of Plant, Faculty Of Agriculture, Brawijaya University. Appliance had used were gauge, string of raffia, launching of bamboo, dibber, lable, jotter, camera, weighing-machine, SPSS 16.0 and oven. Materials have used were herbicide, maize seed of groove BC81163, BC91013, BC520265, BC81141, BC520015-1, BB50178, BC91011 and of BC41399 and of variety P23, B-89, BISI 12. This Research use Random Device of Group ( RAK). There are 11 repeated treatment counted 3 times, so that obtained 33 attempt plot. Obtained to be data to be analysed by using manner analysis ( test F) with real level 5%. Hereinafter to know difference among treatment, test comparison by using test of Duncan ( DMRT) at 5% level's.

From result of research known that crop pertained holding up was P23 varietie's ( 9,94%). Variety B-89 ( 15,03%) and also grooves BC81141 ( 12,6%), BC50015-1 ( 21,24%), and BC41399 ( 16,11%) pertained rather hold up. Variety BISI 12 ( 47,64%) and also groove BC91013 ( 73,24%) pertained rather sensitive. Groove BC81163 ( 76,3%), BC91013 ( 73,24%), BC520265 ( 68,72), and BB50178 (89,56) pertained sensitive seen from attack intensity of downey mildew (*P. maydis*)