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Soil water dynamics in oil palm and rubber plantations in relation to slope and vegetation cover

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To identify the dynamics of water infiltration related to the slope gradient of peoples' oil palm and rubber plantation a double ring infiltrometer method was applied at plain, slight, medium and heavy gradient slope. Water infiltration rate at oil palm plantation especially at inactive pathway (*gawangan mati*) is higher than in active pathway (*Pasar pikul*). The designed strip place for collecting of organic material after periodical harvest and maintenance purposes inhibits runoff water and infiltrates more water into the soil. Vigourous lower vegetation growth due to insufficient weed control as well as the intensive falling leaves of rubber plant in dry season play a significant role for the dynamics of water infiltration.