

# **Recycle of Natural Byproducts : Old Apple Trees as Grub Diet and the Resulting Excretes as a Fertilizer**

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Disposal of the old apple trees in the orchards has been raised as an agricultural waste issue. Here we suggest an alternative to use the old apple trees for environment-sound recycle. The flower beetle, *Protaetia brevitarsis*, has been commercially important insect species and could be raised by feeding the old apple trees. The gained weight of the grubs fed the old apple trees was higher(123.6%). Than that of the grubs fed the common sawdust. The massive excretes produced during the grub rearing were applied on the lettuce farm, and increased the yield of the lettuce : 160.5% in leaf length, 129.0% in leaf width, and 160.0% in weight. These results clearly suggest a recycle strategy of the old apple trees in the orchards.