

### Demonstration of Tea Harvest Machines

Tea is an industrial crop, which is produced in Eastern Black Sea Region covering 180 km area extending from Artvin to Trabzon on the coastal strip and 10 - 35 km from coast to inward area. It can be produced on the slopes up to 1,000 m altitude. Tea cultivation in the region is being performed on 767,000 da area by 203,000 producers. The average harvest of fresh tea leaves per year is about 1.1 million tons.

As tea harvest is commonly done using shears mainly by women, it is very hard and tiresome task for the producers. Average yield is 1,000 kg/da and one farmer can harvest only 200 - 250 kg per day (8 - 9 hours). Therefore, harvest of 1 da of tea garden needs 4 - 5 person-days. Labor-saving in tea harvest is an important condition to introduce additional crops to tea producers.

Tea harvest machines, which are recently introduced in this region, can harvest 600 - 900 kg per day. This one-man portable machine can do the same work that has been taking 3 - 4 person-days in just 6 - 8 hours.

The DOKAP-TARIM project implemented the demonstrations of tea harvest machine in Rize and Trabzon on May 25 and 26, 2009, respectively. The purpose of the demonstration are to show farmers suitable machine performance of tea harvesting under field conditions and to inquire farmers' requirement and need for tea harvest mechanization. OCHIAI Cutlery Manufacturing Co.,Ltd., who is a leading company of motorized tea plucker in Japan was invited for the demonstration from Japan. These demonstrations were reported in several local TV programs and newspapers.

#### Rize

Place: Haremtepe, Çayeli district, Rize

Date/Time: May 25, 2009, 14:00-15:30

Participant: village chief and 15 farmers and of Haremtepe, Officer of Tea Research Station, Officers of Rize PDA, Chairman and staffs of Chamber of Commerce of Rize, TV and Newspaper

#### Trabzon

Place: Uğurlu, Of district, Trabzon

Date/Time: May 26, 2009, 13:00 - 15:00

Participant: Mayor and 30 farmers of Uğurlu, Officers of Trabzon PDA, Chief of Chamber of Agriculture of Of district, Staff of JICA, Participants of DOKAP-TARIM Seminar, TV and Newspaper



The specifications of tea pluckers demonstrated by the Project are as follows.

**(1) Small tea plucker:**

Model: HV-10  
 One man operated machine  
 Harvesting width: 30 cm  
 Engine power: 0.95 PS  
 Weight: 4.7 kg  
 Working Efficiency: 600 kg/8hr

**(2) Medium tea plucker:**

Model: AM-110V + AM-110E  
 One man operated machine  
 Harvesting width: 50 - 60 cm  
 Engine power: 1.4 PS  
 Weight: 10.0 kg  
 Working Efficiency: 900 kg/8hr

**(3) Large tea plucker:**

Model: V8 NewZ2 (R3000) 1040  
 Two men operated machine  
 Harvesting width: 100 - 130 cm  
 Engine power: 3.1 PS  
 Weight: 13.0 kg  
 Working Efficiency: 3,000 kg/8hr

