

2014–2016 Japan Fund for Global Environment

The Brazilian Atlantic coastal forest (Mata Atlântica) conservation promotion project by small farmers spread of agroforestry with Jussara-Palm (*Euterpe edulis*) and other crops.

<p>Purpose of the activity</p>	<p>The ultimate goal of this project is that to achieve the prevention of global warming through the conservation of the Atlantic coastal forest (Mata Atlântica) in Brazil that has been harvested 97% by the agricultural development.</p> <p>And our project is able to build to the economic independence of small farmers living in Mata Atlântica by disseminating agroforestry (AF) with Jussara-Palm and other Brazilian Crops.</p> <p>This project is intended to form a network of industry, academia and government to establish a sustainable farming methods do not depend on the illegal logging forest.</p>
<p>Challenges recognition in the activity</p>	<p>Our project was carried out AF promotion project using 2012 Japan Fund for Global Environment.</p> <p>As a result, by the Jussara-Palm AF promotion PJ meeting and pilot project act in Rio Preto village, Seta Barras city, Sao Paulo state, the following subjects became apparent.</p> <ol style="list-style-type: none"> 1) The need for soil improvement by appropriate fertilization 2) Possibility of organically grown coffee mixed planting by Jussara-Palm AF 3) Development of Jussara-Palm fruit pulp processing technology 4) Potential as a raw material for nutrition food and health food of Jussara-Palm fruit pulp 5) Possibility of Pau Brazil mixed planting cultivation that is a tree of Brazil country originated etc.
<p>Background of the activity</p>	<p>Brazil is the country of the world's largest Japanese immigrants, about 260,000 Japanese went to Brazil before World War II through the postwar period. Many Japanese immigrants are engaged in cotton plantations and coffee</p>

	<p>plantations etc. in Brazil, to demonstrate the inherent politeness and patience, played a significant contribution to agricultural development in Brazil.</p> <p>However, the Atlantic forest (Mata Atlântica) and the Amazon of Brazil has continued to the present decrease of tropical rainforest by developing large-scale illegal logging and due to delays in improving the lives of local residents, if you leave it, Brazilian rainforest that has been concern can be reduced significantly.</p>
<p>The grant amount in 2014</p>	<p>¥2,000,000-</p>
<p>2014-2016 Jussara-Palm AF Project Chart</p>	
<p>The goal of the grant activity in 2012</p>	<p>Activity goals for this year is that, in the support area, efforts to Jussara-Palm AF will develop. The following, for example.</p> <ol style="list-style-type: none"> 1) Jussara-Palm AF cultivation area is enlarged. (Expansion of AF cultivation area of 10 percent or more a year) 2) Jussara-Palm AF cultivation technology is improved. 3) Awareness of the region is attained, in all elementary and junior high schools in the city, teaching about Jussara-Palm AF is to be performed. 4) Ecotourism model for sustainable Jussara-Palm AF spread is built and tourists to participate increases. 5) And cooperation framework of the participants towards Jussara-Palm AF spread is constructed, the Council will be established. 6) Visits from other regions is to visit with respect to efforts to Jussara-Palm AF.
<p>Expected effects of the</p>	<p>2014 activity goals of this PJ is as follows.</p>

grant activity in 2014	<p>Activity 1: By holding Jussara-Palm AF Promotion Committee, promotion challenges are commonly recognized.</p> <p>Activity 2: The technology exchange with AF Tomé-Açu farmers, we established a model field (1ha).</p> <p>Activity 3: Conducted Jussara-Palm AF cultivation technology follow-up guidance.</p> <p>Activity 4: Jussara-Palm AF seminar participants more than 30 people.</p>
Implementation Schedule	<ul style="list-style-type: none"> · August 2014: In Sete Barras city, holding of Jussara-Palm AF support Project meeting and the technology exchange with AF Tomé-Açu farmers . · August 2014-March 2015: In Sete Barras city, installation of Jussara-Palm AF model field. · August-December 2014: In Sete Barras city, implementation of Jussara-Palm AF cultivation technology follow-up guidance. · February 2015: In Sete Barras city, implementation of Jussara palm AF seminar for other farmers.
Implementation members	<p>◆Japanese organization: Projects committee Jussara palm in the NPO VERSTA (Dr. Yoshikazu Onose/ Ph.D, Management Consultant, Dr. Masaaki Yamada/ Associate Professor, Tokyo University of Agriculture and Technology Graduate School of Agriculture. Mr. Akio Chikai/President , Café do Centro Japan Co., Ltd.)</p> <p>◆Brazilian counterpart organization: Co-Projects committee Jussara palm with Brazil and Japan(Dr. Guenji Yamazoe/ Presidente, ABJICA. Former minister, State of Sao Paulo Institute of Forestry Department of Environment. Mr. Wagner Portilho/ Forest Foundation. Mr. Gilberto Ota/Manager of Agricultural Department, The Sete Barras City. Mr. Luiz C. Fazuoli/Campinas Agricultural Research Institute(CAI). Dr. Fernando Silveira Franco/ Professor, University of Federal de São Carlos. Dr. Celso C. Lopes/ Associate Professor, University of Campinas(UNICAMP). Mr. Geraldo Francisco de Aguiar /Leader of Rio Preto Sete Barras, etc.), other.</p>

【Current Status of Rio Preto Sete Barras】



List of substances and antioxidant component activation key of life (excerpt) fruit from Brazil

Fruit from Brazil (excerpts)		Vitamin C (mg/100 g fresh mattera)	Total anthocyanins (mg/100 g fresh mattera)	Extractable polyphenols (mg GAE/100 g)
Name	Species			
Acerola	Malpighia emarginata	1357 ± 9.5	18.9 ± 0.9	1063 ± 53.1
Camu-camu	Myrciaria dubia	1882 ± 43.2	42.2 ± 17.0	1176 ± 14.8
A:Açaí, assai	Euterpe oleracea	84.0 ± 10	111 ± 30.4	454 ± 44.6
B : Juçara, Jussara	Euterpe edulis	186 ± 43.3	192 ± 43.2	755 ± 8.3
B/A (%)		221.4	173.0	166.3
Function		*Prevention of scurvy *Promote absorption of minerals	*Antioxidant (to prevent hardening of the arteries, stroke) * Suppression of muscle fatigue	*Antioxidant effect *Hormone promoting activity

Source : Maria do Socorro M. Rufino “Bioactive compounds and antioxidant capacities of 18 non-traditional tropicalfruits from Brazil” , Food Chemistry 121 (2010) 996-1002