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POSTHARVEST CONSERVATION OF CUPUASSU FRUITS (*THEOBROMA GRANDIFLORUM*) (WILLDENOW EX. SPRENGEL) SCHUMANN) IN LOW TEMPERATURE CONDITIONS.H. C. LIMA<sup>1</sup> & J. S. ANDRADE<sup>1</sup><sup>1</sup>EMBRAPA-CPAA/INPA, C. P. 319, Manaus-AM, Brasil.

During the storage in low temperature conditions (temperature  $10\pm 2^{\circ}\text{C}$  and relative humidity of  $65\pm 3\%$ ) the following parameters were evaluated in cupuassu fruits: spoiling degree, loss of weight, density, moisture content, pH, total acidity, soluble solids, Brix/acidity ratio and sensorial analysis. The deterioration of the pulp started only in the 15<sup>th</sup> day. At the 30<sup>th</sup> all fruits have showed spoiled pulp. The loss of weight reached 32% at the 30<sup>th</sup> and the density decreased during the storage. There was increase in the pulp pH and in the Brix/acidity ratio and a decrease in the total acidity. The juice sensorial analysis showed a drop in acceptance of the tasters, starting from the 15<sup>th</sup> day of storage after harvesting. It was concluded that to maintain the quality and avoid the loss of fruits, the utilization of fruits should happen in a period no longer than 15<sup>th</sup> days after harvest, under the temperature conditions studied.

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CONSERVATION OF CUPUASSU (*THEOBROMA GRANDIFLORUM*) PULP UNDER COLD TEMPERATURE CONDITIONS.R. DE M. MIRANDA<sup>1</sup><sup>1</sup>EMBRAPA-CPAA, C. P. 319, CEP 69048-660, Manaus-AM, Brasil.

The botanical species *Theobroma grandiflorum* Schum is frequently known as cupuassu, is emerging as great potential in the food industry, of which the pulp is consumed in various ways. The present study was conducted with the objective to observe the most adequate storage pulp conservation without the pasteurization or chemicals preserves utilization. Amongst the temperatures to which the pulp was exposed, the one which gave the best results, both microbiologically and bromatologically, was that -  $12^{\circ}\text{C}$ , which is the one recommended for storing the pulp between the harvests.

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## CONSERVAÇÃO "IN NATURA" DE MANGAS 'PARVIN' COM USO DE COBERTURAS, EM CONDIÇÕES AMBIENTAIS E SOB REFRIGERAÇÃO.

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Frutos de manga 'Parvin', foram colhidas em 1992/93 no estágio "de vez". Divididos em dois lotes de 200 frutos e submetidos a 5 tratamentos de 40 frutos cada, foram mantidos em dois ambientes. O 1º lote sob condições ambientais ( $27,2\pm 1,44^{\circ}\text{C}$ ;  $71,5\pm 6,2\%$  UR) e o 2º lote sob refrigeração ( $14,0^{\circ}\text{C}$ ; 56% UR) foi mantido, durante 21 dias antes de ser levado ao ambiente ( $29,0\pm 0,65^{\circ}\text{C}$ ;  $58,8\pm 2,68\%$  UR). Os tratamentos foram: TA e TG = testemunhas; THA e THG = testemunhas com hipoclorito; TTA e TTG = tratamento térmico em TBZ a 1000 mg/litro; TTVA e TTVG = tratamento térmico e protegido com plástico sob vácuo parcial e TTCA e TTCC = tratamento térmico seguido de imersão em cera. As letras A e G indicam se os frutos foram mantidos ao ambiente (A) ou sob refrigeração (G). Os parâmetros avaliados foram evolução da

perda de peso, coloração externa e da polpa, presença de doenças, aparência, colapso interno do fruto, porcentagem de casca, semente e polpa. Assim como, o conteúdo de sólidos solúveis totais ( $^{\circ}$ Brix), a acidez titulável, o índice de maturação e carboidratos solúveis e insolúveis. Os frutos sob condições ambientais apresentaram vida útil de 10 dias nos tratamentos TA, THA e TTA, enquanto no TTCA foi de 12 dias e no TTVA de 19 dias. Sob refrigeração, a vida útil foi de até 18 dias para os tratamentos TG, THG e TTG, enquanto no TTCC foi de 21 dias, e no TTVG foi de até 27 dias. Constatou-se que as podridões se constituíram no principal fator responsável pela redução da vida útil das mangas.

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### HOT WATER TREATMENT AND REFRIGERATION FOR MANGOES "TOMMY ATKINS".

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Mangoes were treated by immersion in hot water for 5 min. at temperature of 48, 52 e 55°C followed by 5 min. of cooling in a thiabendazole (1000 mg/l) suspension dip at 12°C. Another approach consisted of immersion of mangoes in a heated thiabendazole (1000 mg/l) suspension for 5 min. at temperatures of 48, 52 e 55°C followed by 5 min. of cooling water dip at 12°C. Fruits were stored for 21 days at 12±1°C and 85-90%RH, then were maintained under local environmental conditions (27±3°C e 80-85%RH). These treatments did not affected the evolution of the biochemical changes during storage. The cooling treatments with fungicide suspension delayed the development of the anthracnose (*Colletotrichum gloeosporioides*). Within these treatments, the 52°C temperature resulted in the lowest fruit weight loss, and therefor, it was the most suitable for the preservation of mangoes.

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### RIPENING AND QUALITY OF MANGO FRUIT AS AFFECTED BY COATING WITH "SEMPERFRESH"

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Mango fruit has a relatively short storage life of 2 to 3 weeks at 13°C. In order to prolong the storage life of the varieties "Haden" and Keitt the fruits were coated with 3 concentrations of the edible film "Semperfresh" and then were stored at 13°C. Fruits of the variety "Keitt" were treated with hot water at 46°C for 90 min before they were coated. Fruits were then evaluated for  $^{\circ}$ Brix, pH, titratable acidity, firmness, color of the skin, weight loss and vitamin C. All 3 concentrations applied to the variety "Haden" (0.8, 1.6 and 2.4%) affected fruit ripening. Titratable acidity, firmness and green color were higher in treated fruits. Weight loss,  $^{\circ}$ Brix and pH were lower in treated fruits. The concentrations applied to the variety "Keitt" (0.7, 1.4 and 2.1%) had no effect on fruit firmness, weight loss or vitamin C. "Semperfresh" had no effect on decay development.