

BIBLIOGRAFIA LATINOAMERICANA

ARGENTINA

Utilización potencial de subproductos de la industria alimentaria.— Pedro Cattaneo (Facultad de Ciencias Exactas y Naturales, Ciudad Universitaria, Buenos Aires, Argentina). *La Alimentación Latino Americana*, 15(126): 12-20, 1980.

Toda industria y por tanto la alimentaria, además de los productos primarios que la determinan, engendra otros residuales denominados "subproductos" cuya recuperación y aprovechamiento merece, día a día, mayor atención en la racionalización industrial. Esa tendencia sobre lo actual hace que con anticipación se piense en subproductos de la industrialización futura de nuevas materias primas. Esto significa que los industriales que aspiren a obtener el mayor provecho de su materia prima, deben cuantificar y someter a estudio de composición química y funcional los distintos subproductos que obtengan. Tales exámenes y cifras de producción decidirán la conveniencia o no de la industrialización de esos subproductos.

Los estudios de esta índole deben ser exhaustivos y practicados por quienes detentan los conocimientos y un nivel metodológico actualizados. Esas inversiones pueden decidir una industrialización inmediata, mediata o desechable al presente. En este último caso se deberá pensar en un destino compatible con un medio ambiente adecuado.

El autor luego discute aspectos relacionados al tema sobre harinas de lino, girasol, subproductos de cítricos y otras frutas, así como de varios otros subproductos. Es un artículo general que ofrece información de mucho valor.

BRASIL

A farinha de milho na panificação.— Roberto Penteadó (Gerente de Pesquisa e Desenvolvimento da SIA Indústrias Reunidas F. Matarazzo, São Paulo, SP, Brasil). *Problemas Brasileiros*, 18 (No. 198): 22-32, 1981.

El trabajo presenta datos generales sobre una nueva técnica para procesar harinas integrales de maíz

que permite que este material sea incorporado hasta en un 25% en harinas de trigo para panificación. El proceso consiste en extraer todo el material soluble en hexano de maíz, dando una harina, de germen y endospermo, que es superior en calidad nutritiva a la harina degerminada de maíz y a la del trigo. Las pruebas de panificación y aceptabilidad fueron muy aceptables, permitiendo esto reducir las importaciones de trigo y produciendo un pan de mejor valor nutritivo con muchas ventajas económicas.

Anti-thermolabile *Escherichia coli* enterotoxin and anti-colonization factor antibodies found in human colostrum (Anticorpos anti-tetoxina termolábil de *Escherichia coli* e anti-fator de colonização em colostro humano).— J. Martins Filho, A. F. Pestana de Castro, M. B. Serafim and J. A. Gomes (Departamento de Pediatria da FCM da UNICAMP, Campinas, SP, Brasil, e Departamento de Microbiologia e Imunologia da UNICAMP). Rev. Inst. Med. trop. São Paulo, 22: 7-14, 1980.

Due to the increasing importance of enterotoxigenic colibacilli and the respective colonization factor present in these strains very often, the main objective of this research was to detect the occurrence of antibodies against thermolabile

enterotoxin (anti-LT) and against the colonization factor CF (anti-CF) among samples of colostrum collected from parturients in the city of Campinas, SP, Brazil. Fifty-six samples of colostrum were paired and examined. Two samples were able to inhibit the permeability factor (PF). The presence of antibodies detected by the inhibition of hemagglutination by bacterial suspensions harbouring the CF antigen was demonstrated in four samples. The test of passive hemagglutination using sheep red blood cells sensitized with the CF antigen gave 11 positive results with titers ranging from 1:20 to 1:160. Only one sample of colostrum showed simultaneously the presence of antibodies against LT enterotoxin and CF. The activity of ST enterotoxin was not neutralized by any sample of colostrum. The results obtained with our samples of colostrum were placed in an intermediate level when compared with those reported for either Pakistanis or Swedish and American parturients. The test of passive hemagglutination seemed to be very sensitive for the detection of anti-CF antibodies. On account of these findings, we believe that there are now further reasons for stimulating breast-milk feeding, at least as prevention against enteric infections caused by enterotoxigenic *E. coli* harbouring the colonization factor CF. 24 Ref.

Diagnóstico da intolerância à açúcares na infância. Asso-

ciação da medida do tempo de trânsito intestinal pelo carmim aos testes de tolerância à lactose e à glicose-galactose (Diagnosis of the lactose intolerance in children. Transit time measurement associated to the tolerance tests of lactose and glucose-galactose).— (Editorial) J. V. M. Campos.- Arq. Gastroent. S. Paulo, 17(1): 31-32, 1980.

No presente número (véase resumen que sigue a este Editorial), Galvão e col. à p. abordam através de seu trabalho, uma tentativa em busca de um método simples, eficiente e acessível para a detecção da intolerância aos açúcares. Utilizam, os autores, o carmim como marcador do trânsito intestinal e comparam o comportamento simultâneo das curvas glicêmicas durante testes de tolerância à lactose ou à glicose-galactose. O carmim (100 mg) foi incorporado à solução do açúcar testado e o trânsito foi também correlacionado às manifestações clínicas caracterizadas por palidez, vômitos, distensão abdominal ou diarreia, isolados ou em associação.

Dentro dos resultados apresentados, algumas conclusões se destacam: 1 — considerando curvas glicêmicas, com desempenho plano associado à ausência de manifestações clínicas, registraram os autores 29.3% de falsos positivos para o teste da lactose e 34.1% para o da glicose-galactose; 2 — considerando a asso-

ciação entre tempo de trânsito e manifestações clínicas registradas a cada 60 minutos do início da prova, consideram, nesse caso, falso positivo o paciente que apresentou tempo de trânsito inferior ao tempo considerado, sem manifestações clínicas e falso negativo o que apresentou manifestações clínicas com o tempo de trânsito igual ou superior ao ponto considerado. Nesse caso, o menor número de resultados falsos ocorreu em 6 horas, tempo que foi tomado como representativo do limite de normalidade de *tempo de trânsito* para os testes de tolerância. Associando tempo de trânsito às manifestações clínicas, os resultados positivos foram de 17% com o teste de lactose e 7.3% ao da glicose-galactose; 3 — associando os dois parâmetros — incremento de glicemia e tempo de trânsito — os autores consideraram *intolerância* quando havia *anormalidade* em ambos os parâmetros; 4 — para a análise das curvas glicêmicas ficou demonstrado que os incrementos das taxas desse açúcar fizeram-se em 91.3% dos casos antes que 90 minutos. Com isso, tornou-se aparente que é indispensável a colheita de sangue após esse tempo.

Após revisão detalhada de pacientes que apresentavam resultados falsos positivos, considerando tempo de trânsito e o conjunto de informações obtidas, os autores concluem que a medida de trânsito pelo carmim associado ao incremento de glicemia deve constituir uma pesquisa recomendável quando se

standard, and of these 33.4% were over 100. In regard to the limiting amino acids, both standards pointed to the sulphur amino acids as being the most frequent. In 59% of the diets, methionine was the limiting (1968 standard) and, in 49% of the diets presenting limiting amino acids (1973 standard), the sulphur amino acids were the most limiting. Results obtained when using the 1973 FAO standard suggest that the protein quality of the studied diets was satisfactory and that a protein deficiency, if present, is a consequence of insufficient ingestion of energy food and/or protein. 9 Ref.

CHILE

Effect of supplemental methionine on lupin diets on hepatic RNA polymerases activity and protein efficiency ratio in weanling rats.— Fernando Garrido, Enrique Yáñez and Marco Perretta (Instituto de Nutrición y Tecnología de los Alimentos, Universidad de Chile, Casilla 15138, Santiago 11, Chile). *Nutr. Reps. Internat.*, 23:771-781, 1981.

The effects of *Lupinus albus* protein supplemented with DL-methionine on the activities of RNA polymerases from isolated rat liver nuclei were determined. Nuclei were obtained from rats fed diets

containing casein (control group); *L. albus* supplying 10% dietary protein, *L. albus* diet plus 0.1, 0.2 and 0.3% of DL-methionine. Three RNA polymerases (I, II and III) were identified on the basis of: a) their enzymatic characteristics (I, is involved in the synthesis of r RNA; II, catalyzes the synthesis of mRNA and III, catalyzes the synthesis of tRNA); b) their intranuclear location; c) their sensitivity to α -amanitin and d) their response to high (HIS) and low (LIS) ionic strength conditions. In the entire nuclei RNA polymerase I is better expressed at LIS and is insensitive to α -amanitin; RNA polymerases II and III respond more fully at HIS. RNA polymerase II is blocked by low doses of the toxin, while inhibition of RNA polymerase III requires higher doses. At HIS conditions the ^3H -UMP incorporation is decreased by 60% with the *L. albus* diet, while with the lupin diet containing 0.3% supplemented DL-methionine reached the values obtained with the control diet at 4 weeks. Moreover, an increase of 60% was obtained at 6 weeks. At LIS conditions, polymerase I activity was restored to normal values with the addition of 0.3% DL-methionine for 4 weeks, while at 6 weeks, a 2.1-fold increased activity was found in respect to the control diet. The effects of α -amanitin showed a high inhibition under HIS conditions and a low inhibition under LIS conditions, meaning that RNA polymerases II and I were

expressed.

A close relationship between liver RNA polymerases activity, as biochemical parameter with body weight gain, food intake and PER, as a nutritional parameter, can be established and may serve as an early estimation of the quality of dietary proteins. 15 Ref.

Chemical composition, nutritive value, and toxicological evaluation of two species of sweet lupine (*Lupinus albus* and *Lupinus luteus*).— Digna Ballester, Enrique Yáñez, Rubén García, Silvia Erazo, Fernando López, Ernesto Haardt, Sergio Cornejo, Alejandro López, José Pokniak, and Clinton O. Chichester (Instituto de Nutrición y Tecnología de los Alimentos, Universidad de Chile, Casilla 15138, Santiago 11, Chile). *Agr. Food Chem.*, 28: 402-405, 1980.

Two species of sweet lupine, *Lupinus albus* and *Lupinus luteus*, were analyzed. Both species were good sources of protein (34 and 39%). Lipid content measured as ether extract was 10.9% for *L. albus* and 4.7% for *L. luteus*. Both legumes had high crude fiber contents of more than 10% and low alkaloid contents (0.05 and 0.09%). The protein efficiency ratio was low in both species (0.48 and 0.99), but supplementation with DL-methionine increased base values signi-

ficantly ($P < 0.01$), 2.84 and 2.30, respectively. In a toxicity study with rats that consumed a 20% lupine protein diet (supplemented with 0.3% DL-methionine), the growth rate of animals fed *L. luteus* and *L. albus* was similar to that produced by an unsupplemented 20% protein casein diet. The weight of liver, kidneys, heart, spleen, and adrenals and the histology of kidneys and lungs were normal. 29 Ref.

COLOMBIA

Lactancia natural. Revisión de algunos conceptos.— Germán Barrera Z. (División de Salud, ASCOFAME, Bogotá, Colombia). *Rev. Colombiana de Pediatría y Puericultura*, Tomo 32, No. 1, p. 16-32, abril de 1980.

Este interesante artículo no tiene Resumen, y cuenta con 45 Ref. Los interesados pueden obtener reimpresos dirigiéndose al autor, a la siguiente dirección: Calle 45-A No. 9-77, Bogotá, Colombia.

VENEZUELA

Anemia y Embarazo.— Oscar Agüero, Saúl Kízer y Abraham Halfen (Maternidad "Concepción Palacios", Caracas, Venezuela). *Rev. Obstet. Ginecol., Venezuela*. 11: 110-114, 1980.

Se presenta un análisis comparativo entre 1,016 embarazadas anémicas y 2,321 no anémicas, atendidas pre e intranatalmente en la Maternidad Concepción Palacios. Los aspectos comparados mostraron: mayor frecuencia de toxemia y mayor mortalidad perinatal en embarazadas no anémicas, y ausencia de diferencias estadísticamente significativas en lo que se refiere a partos prematuros, peso promedio de los

recién nacidos, bajo peso al nacer y fetos voluminosos. La revisión de la literatura muestra discrepancia y confusión, por lo cual se concluye que no está claro el papel desempeñado por los grados moderados de anemia en algunas fallas y complicaciones de la reproducción humana y que debe reevaluarse la necesidad y la utilidad de la administración rutinaria de hierro a todas las embarazadas. 34 Ref.