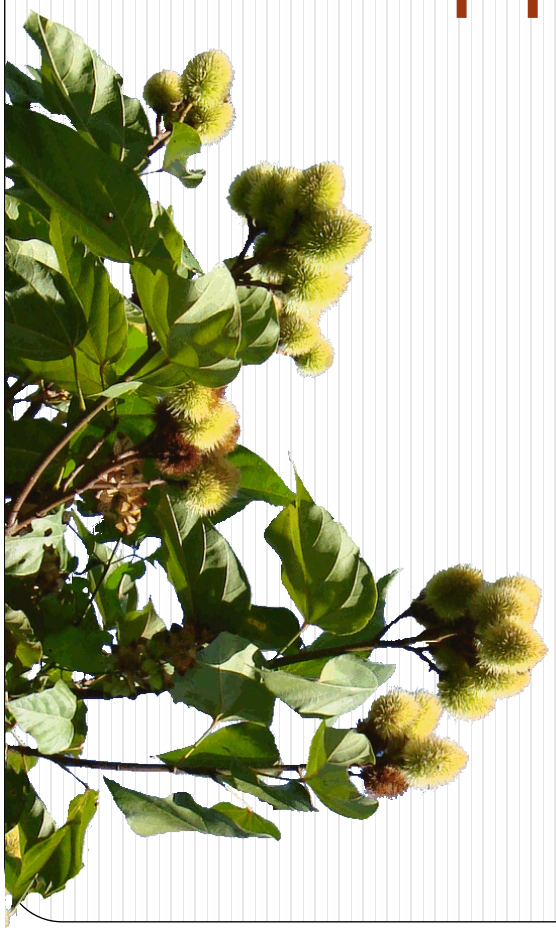

PRODUTOS DO URUCUM

CARACTERÍSTICAS E TECNOLOGIAS DE OBTENÇÃO

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Componente	Sementes	Cachopas	Folhas	Galhos
Umidade (g/100g)	9,76	11,19	10,70	10,26
Cinzas (g/100g)	4,60	3,39	5,40	3,61
Proteína-%Nx6,25 (g/100g)	10,88	5,30	13,50	8,07
Extrato etéreo (g/100g)	4,80	1,41	8,78	0,83
Fibras (g/100g)	12,58	21,40	11,25	24,91
Carboidratos totais[1]	57,38	57,31	50,37	52,32

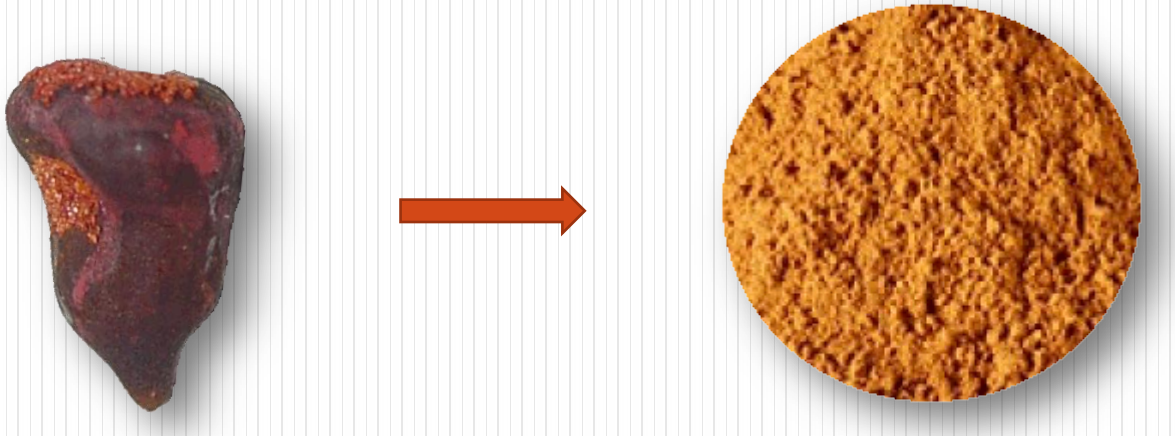
[1]= Valores obtidos por diferença [100-(umidade+cinzas+proteínas+extrato etéreo+fibras)]

Arilo

(10%)

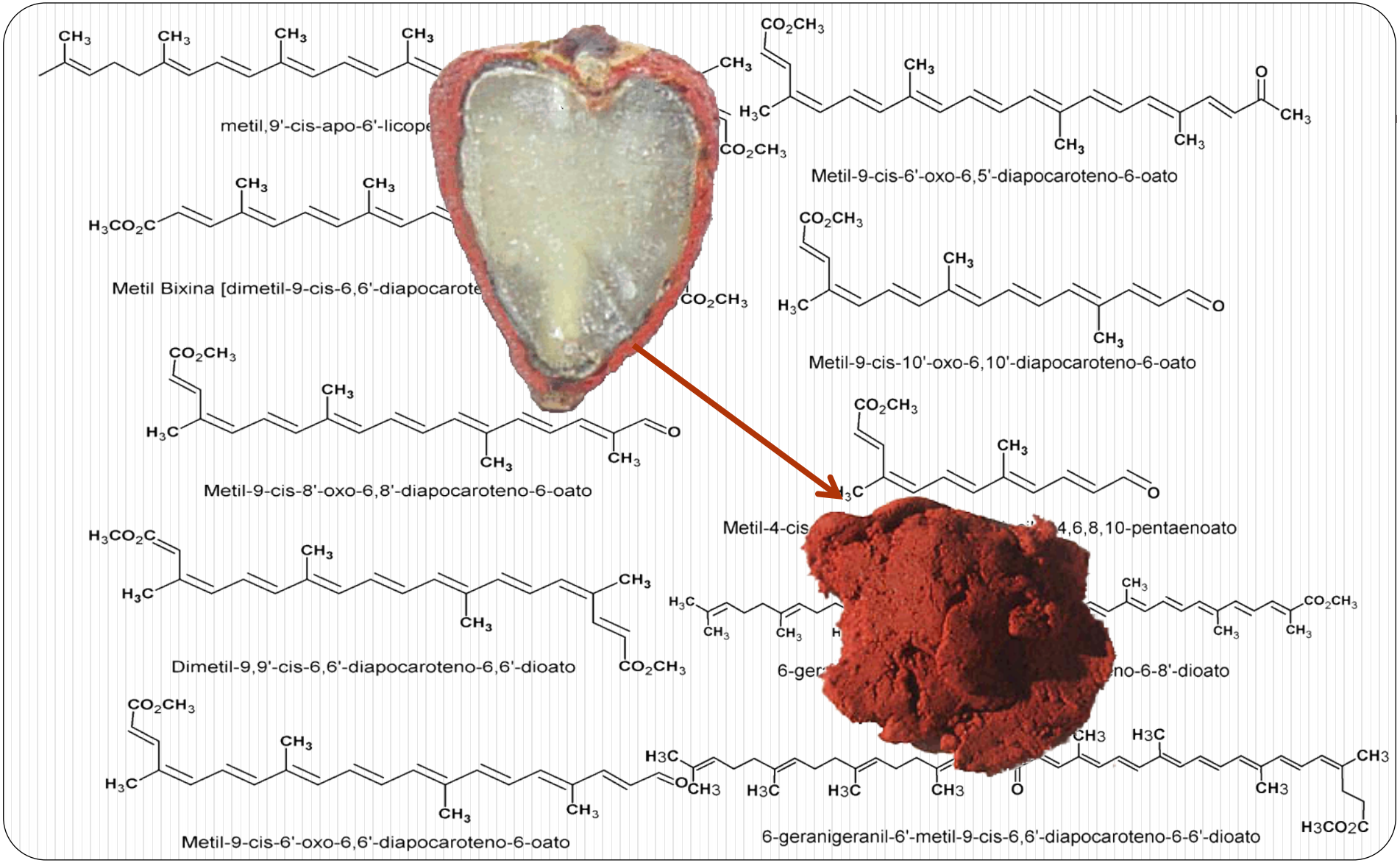
Composição g/100g	Semente(1)	Arilo
Umidade	9,8	3,5
Cinzas	4,6	2,0
Proteína bruta (%N x 6,25)	10,8	2,5
Extrato etéreo	4,8	30,0
Carboidratos totais	70,0	32,0
Bixina	-	30,0

(1) Semente sem o arilo

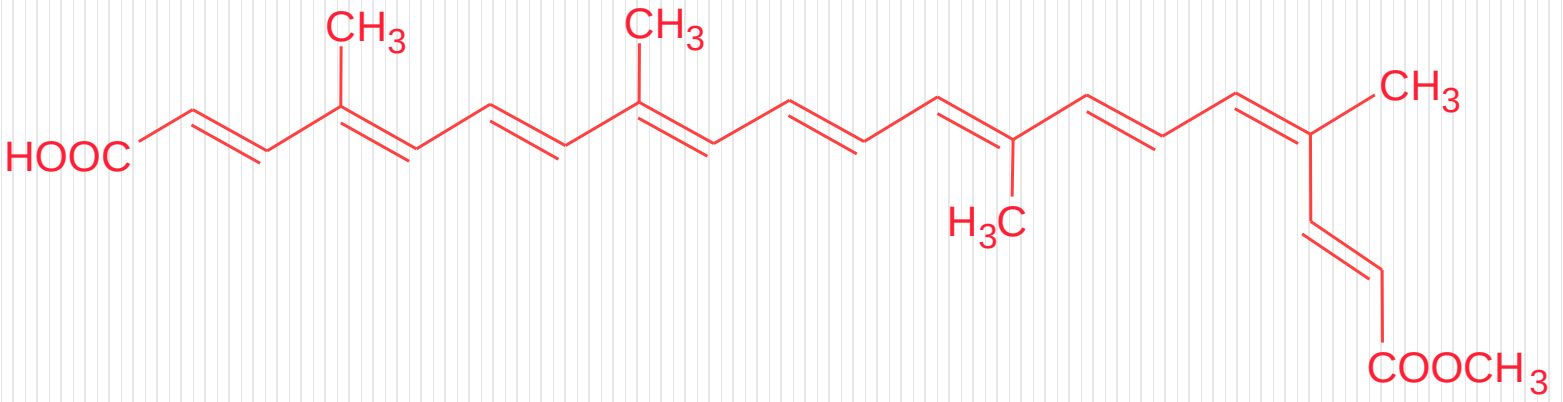


FARELO DE SEMENTE DE URUCUM

Composição (g/100g)	Semente (1)
Umidade	10
Cinzas	5
Proteína bruta (%N x 6,25)	11
Extrato etéreo	5
Carboidratos totais	69 (Fibra ~ 10)

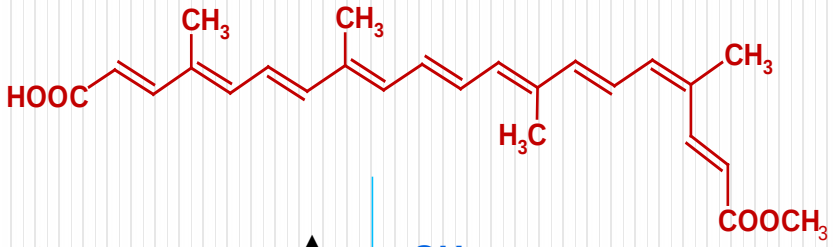

metil,9'-cis-apo-6'-licope
Metil-9-cis-6'-oxo-6,5'-diapocaroteno-6-oato
Metil Bixina [dimetil-9-cis-6,6'-diapocarote
Metil-9-cis-10'-oxo-6,10'-diapocaroteno-6-oato
Metil-9-cis-8'-oxo-6,8'-diapocaroteno-6-oato
Metil-4-cis
4,6,8,10-pentaenoato
Dimetil-9,9'-cis-6,6'-diapocaroteno-6,6'-dioato
6-ger
no-6-8'-dioato
Metil-9-cis-6'-oxo-6,6'-diapocaroteno-6-oato
6-geranigeranil-6'-metil-9-cis-6,6'-diapocaroteno-6-6'-dioato

BIXINA



cis-bixina (metil, hidrogênio, 9'-cis-6,6'-diapocaroteno-6'-metanoato-6-oico

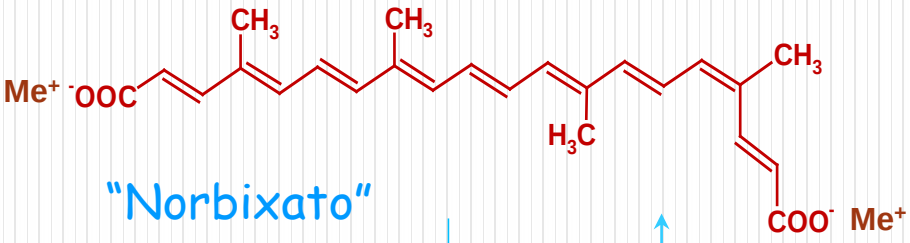
Lipossolúvel



Bixina

▲ OH^-

"Hidrossolúvel"

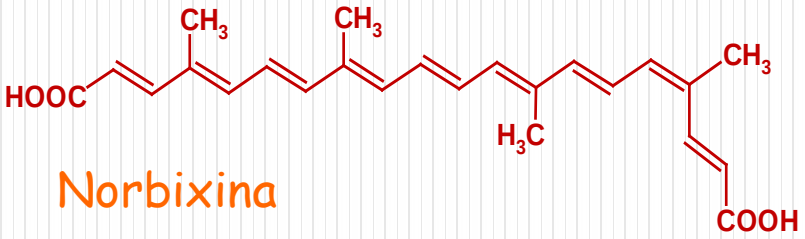


"Norbixato"

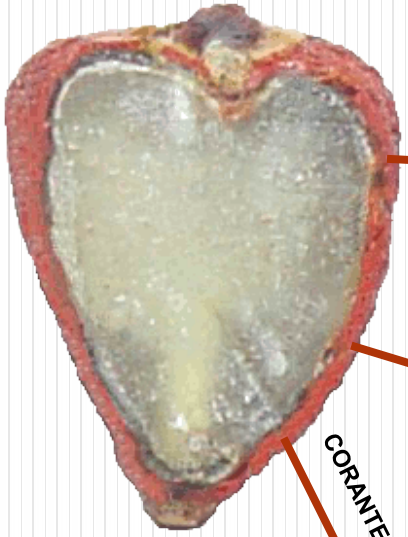
H^+ ▼

OH^- ▲

Lipossolúvel



Norbixina



COLORÍFICO

PASTA CORANTE

CORANTE LÍQUIDO

COLORÍFICO

CORANTE LÍQUIDO

CORANTE PÓ

COLORÍFICO
OU
COLORAU

Condimento

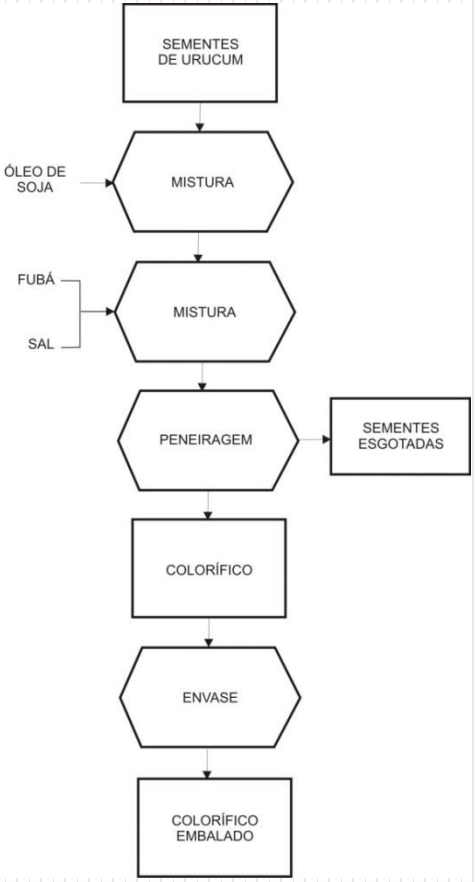
COLORÍFICO OU COLORAU

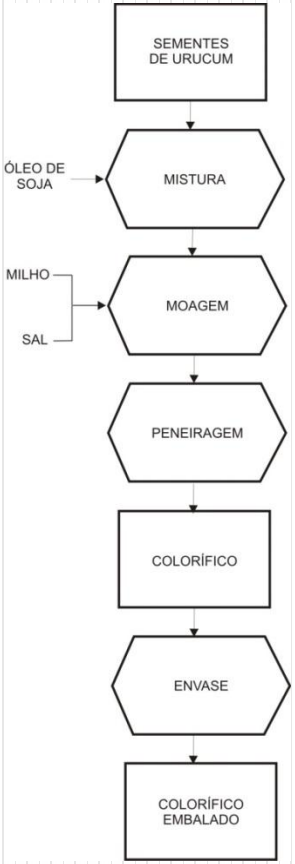
"Pilagem"

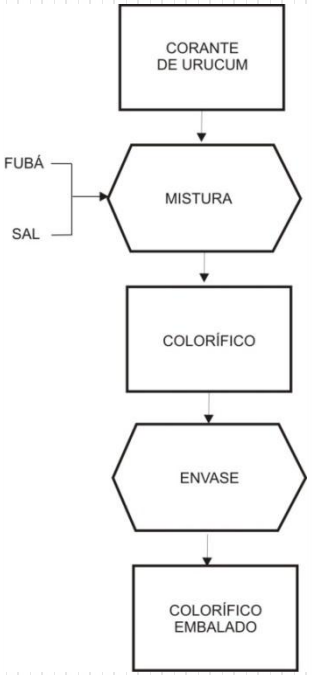
Tecnologia para a produção doméstica de colorau:

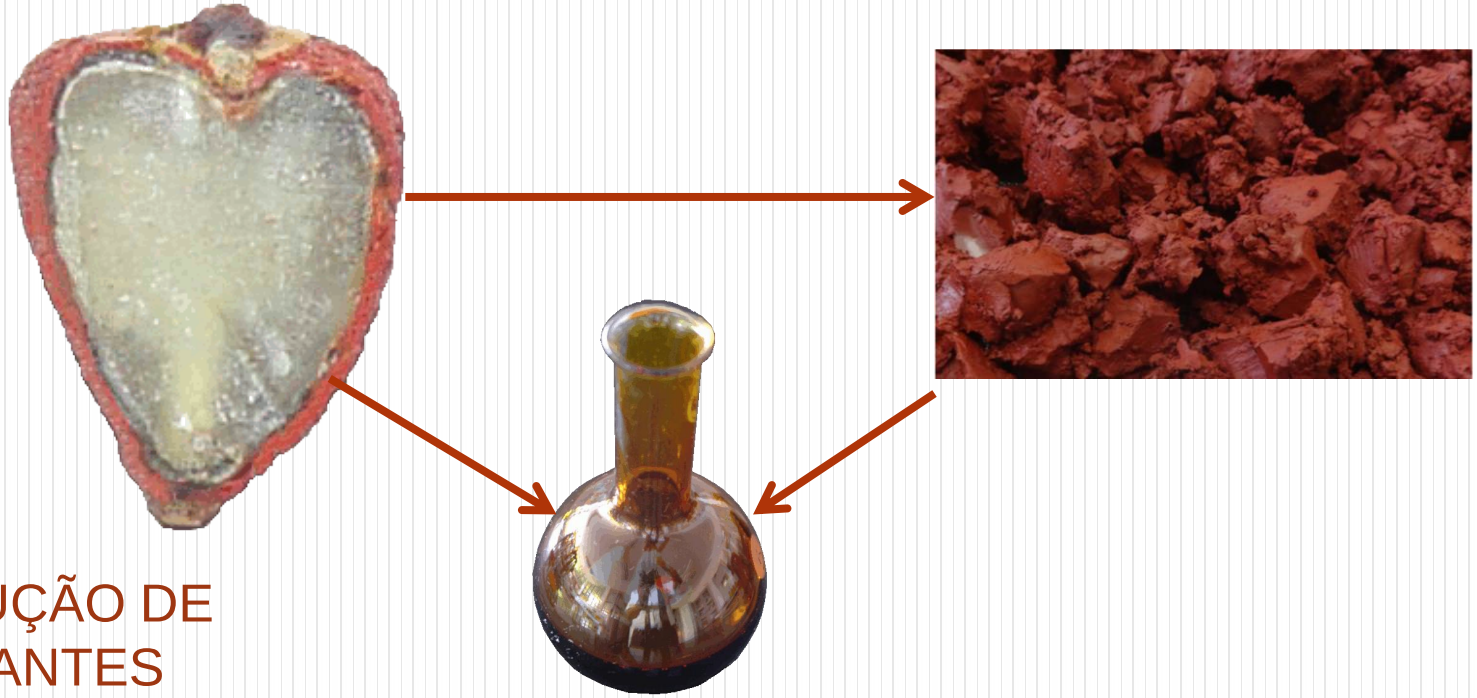
Secagem e fritura das sementes, formulação, pilagem, peneiração e empacotamento. Para a produção de 2kg de colorífico são necessários 300g de sementes de urucum, 35ml de óleo de soja, 300g de sal e 1600g de fubá. A tecnologia envolve a imersão das sementes secas no óleo de soja por uma noite, fritura da mistura por 3 minutos, resfriamento e pilagem das sementes. A mistura, após a pilagem, é peneirada e o material retido na peneira retorna ao pilão para reiniciar o processo. O material peneirado é então envasado em sacos plástico e comercializado.

PRODUÇÃO DO COLORÍFICO





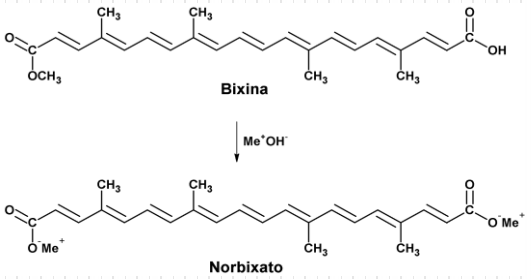


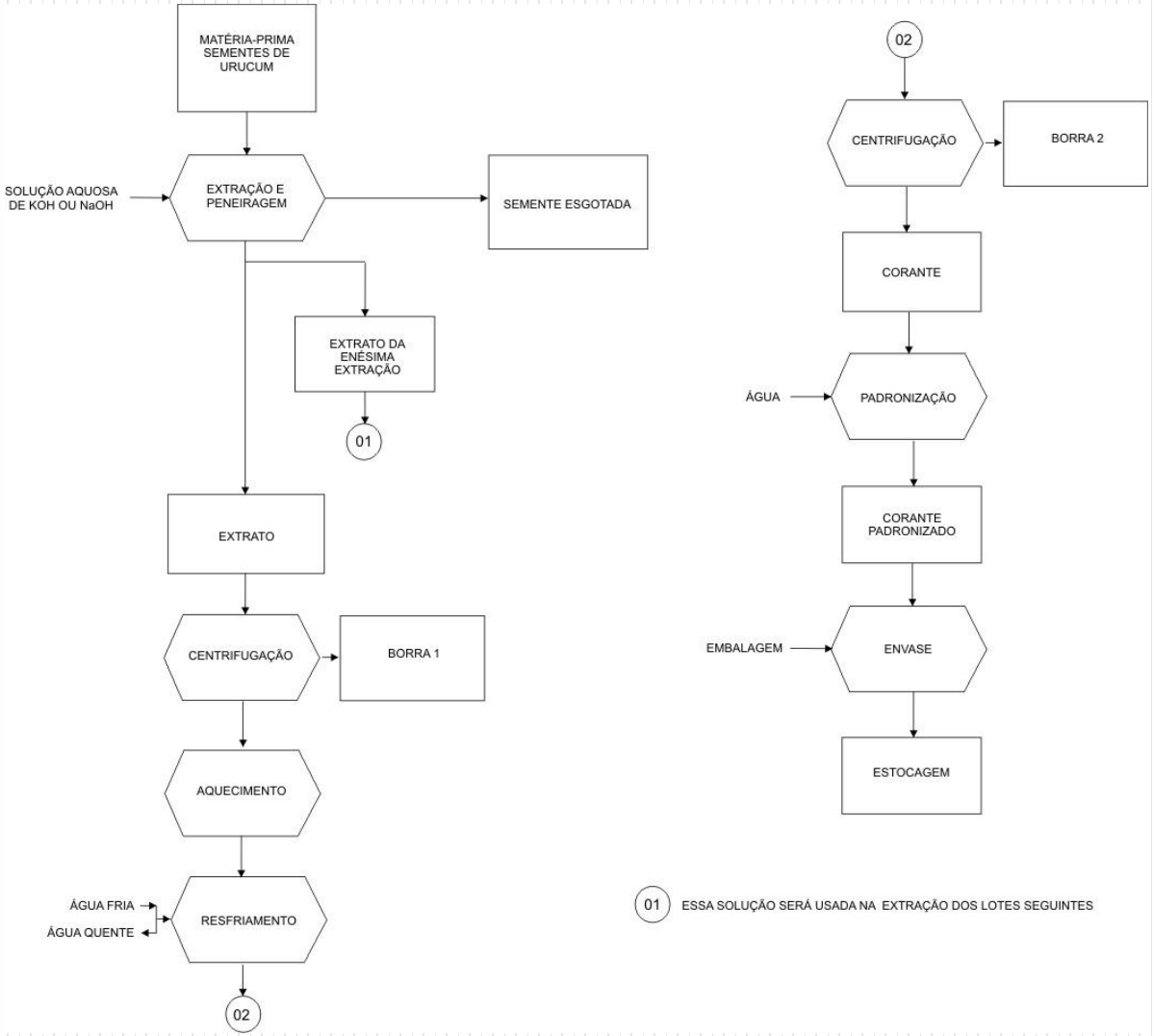


PRODUÇÃO DE CORANTES LÍQUIDOS

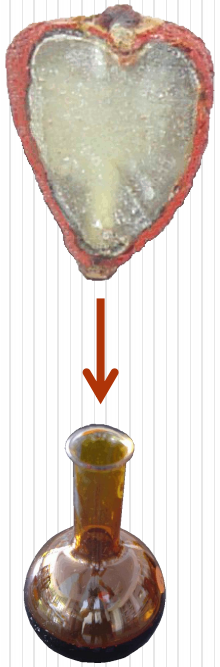
Soluções “hidrossolúveis” → 0,5 a 4% sal de norbixina;
Soluções lipossolúveis < 0,5% bixina ou norbixina;
Suspensões lipossolúveis > 5% bixina ou norbixina;
Emulsões lipo e hidrossolúveis < 3% bixina ou norbixina;
Misturas com outros pigmentos.

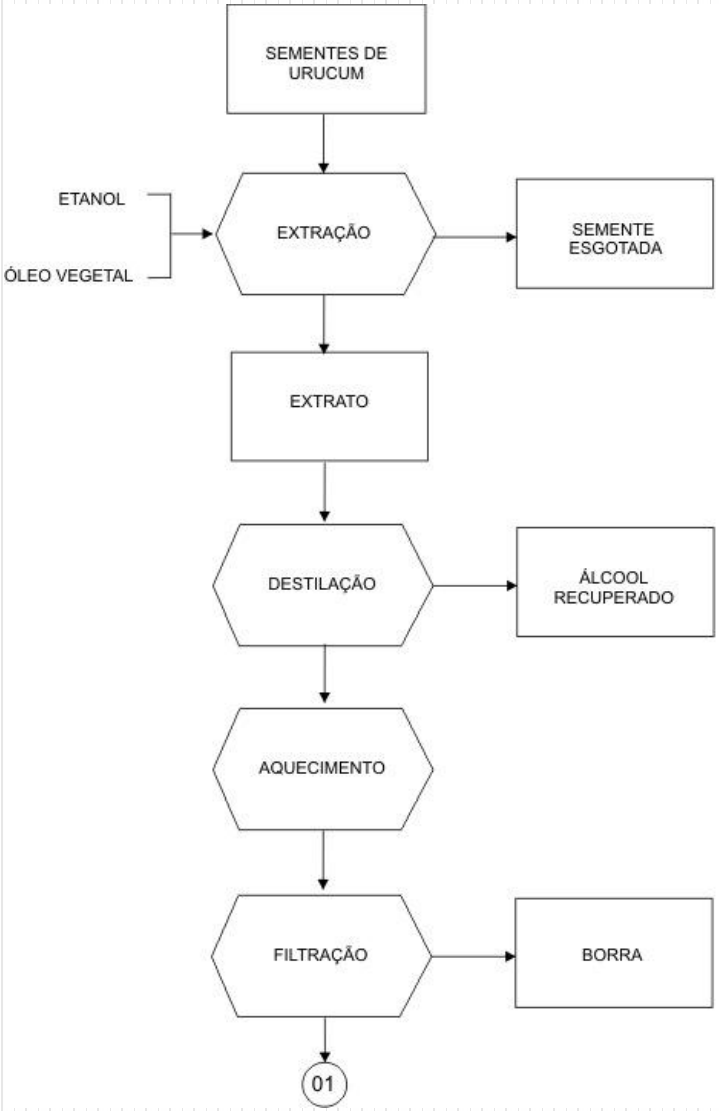
CORANTE HIDROSSOLÚVEL

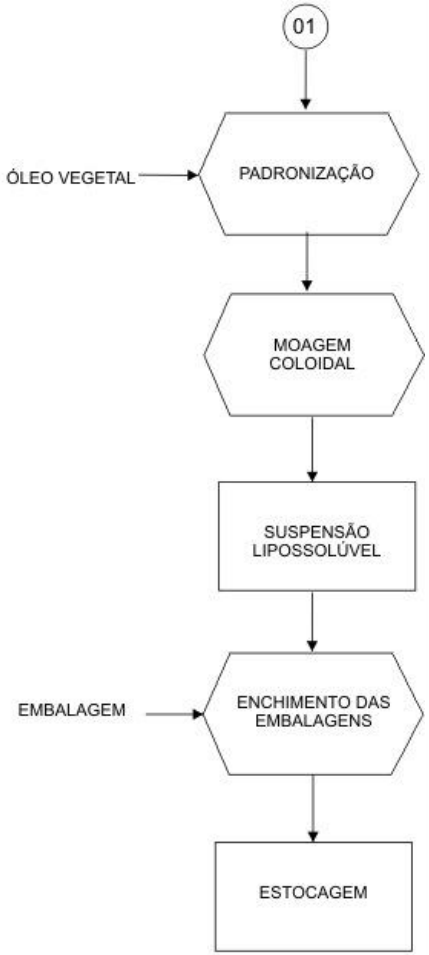




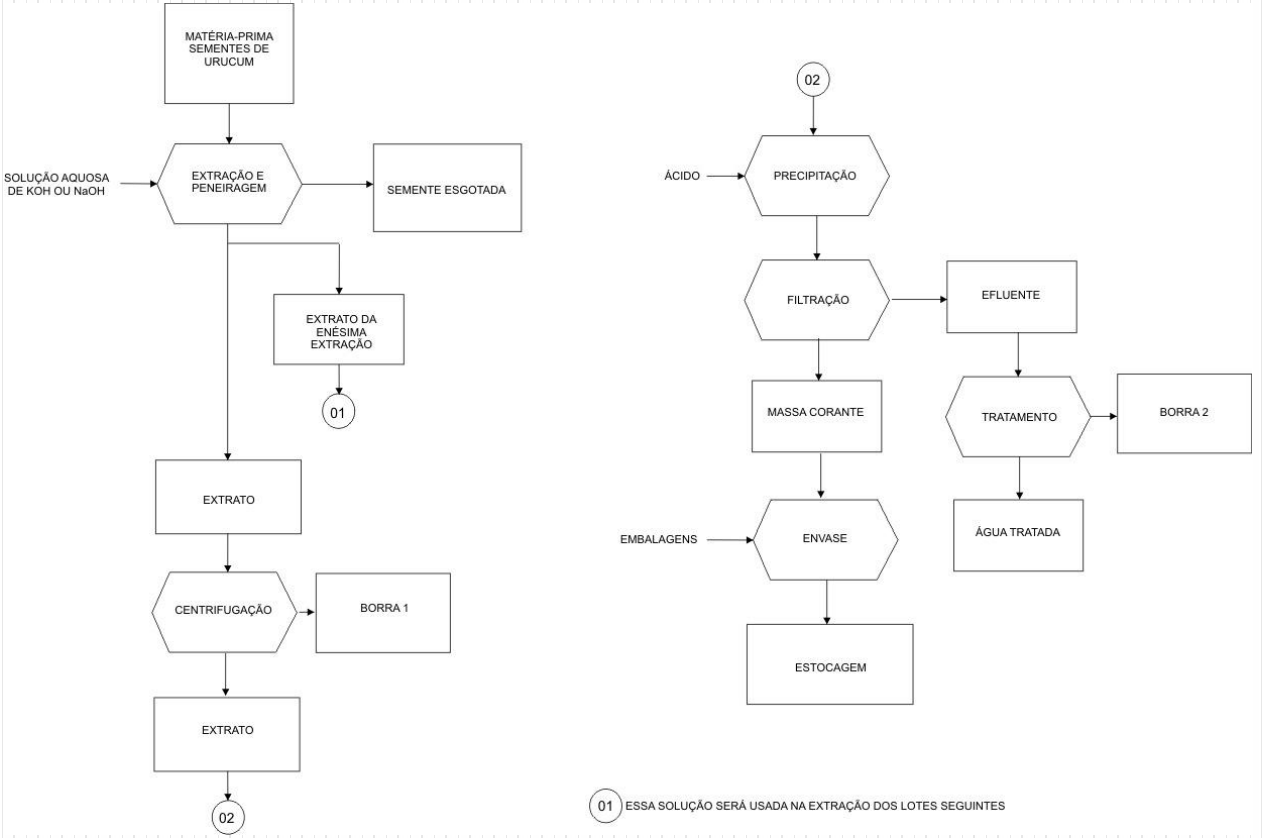
CORANTE LIPOSSOLÚVEL



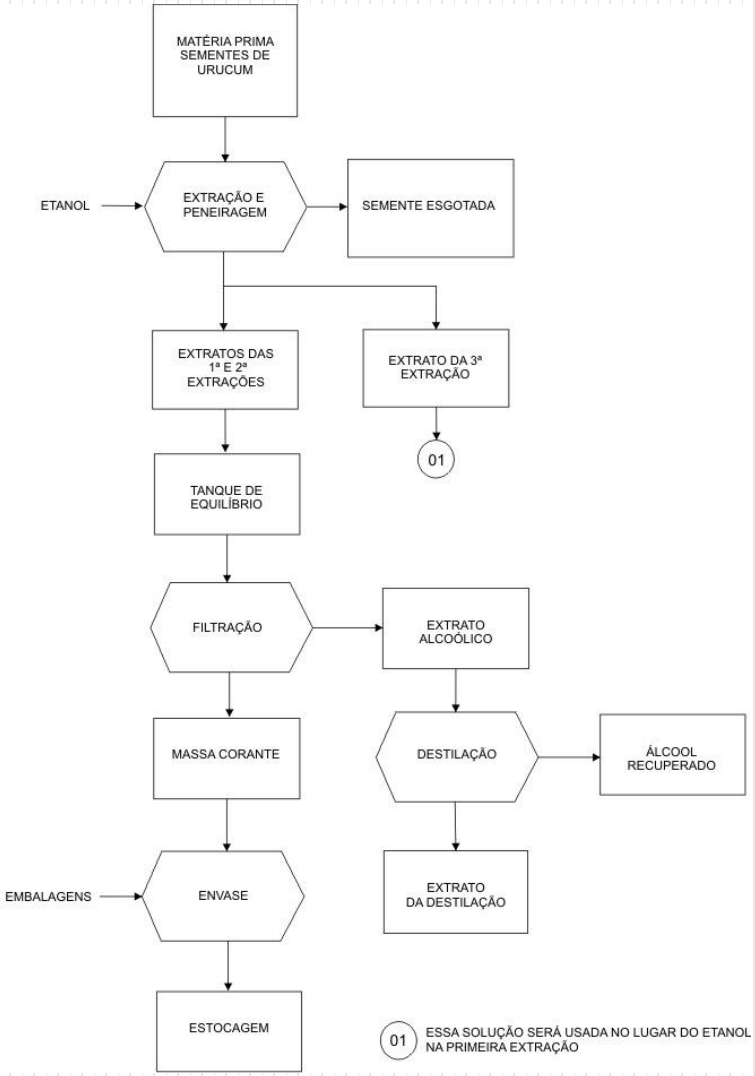




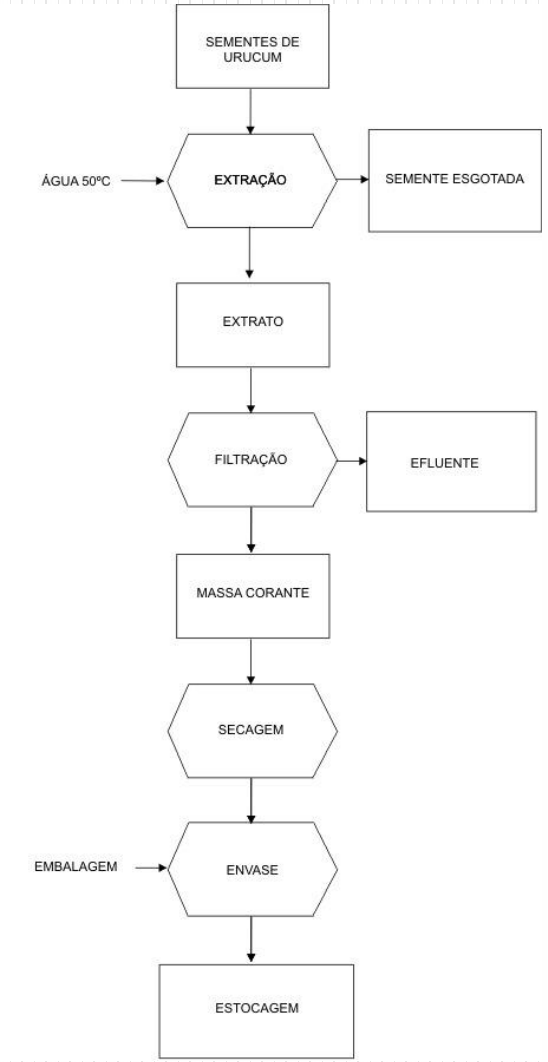
MASSA CORANTE - EXTRAÇÃO COM SOLUÇÕES ALCALINAS



MASSA CORANTE - EXTRAÇÃO COM ETANOL

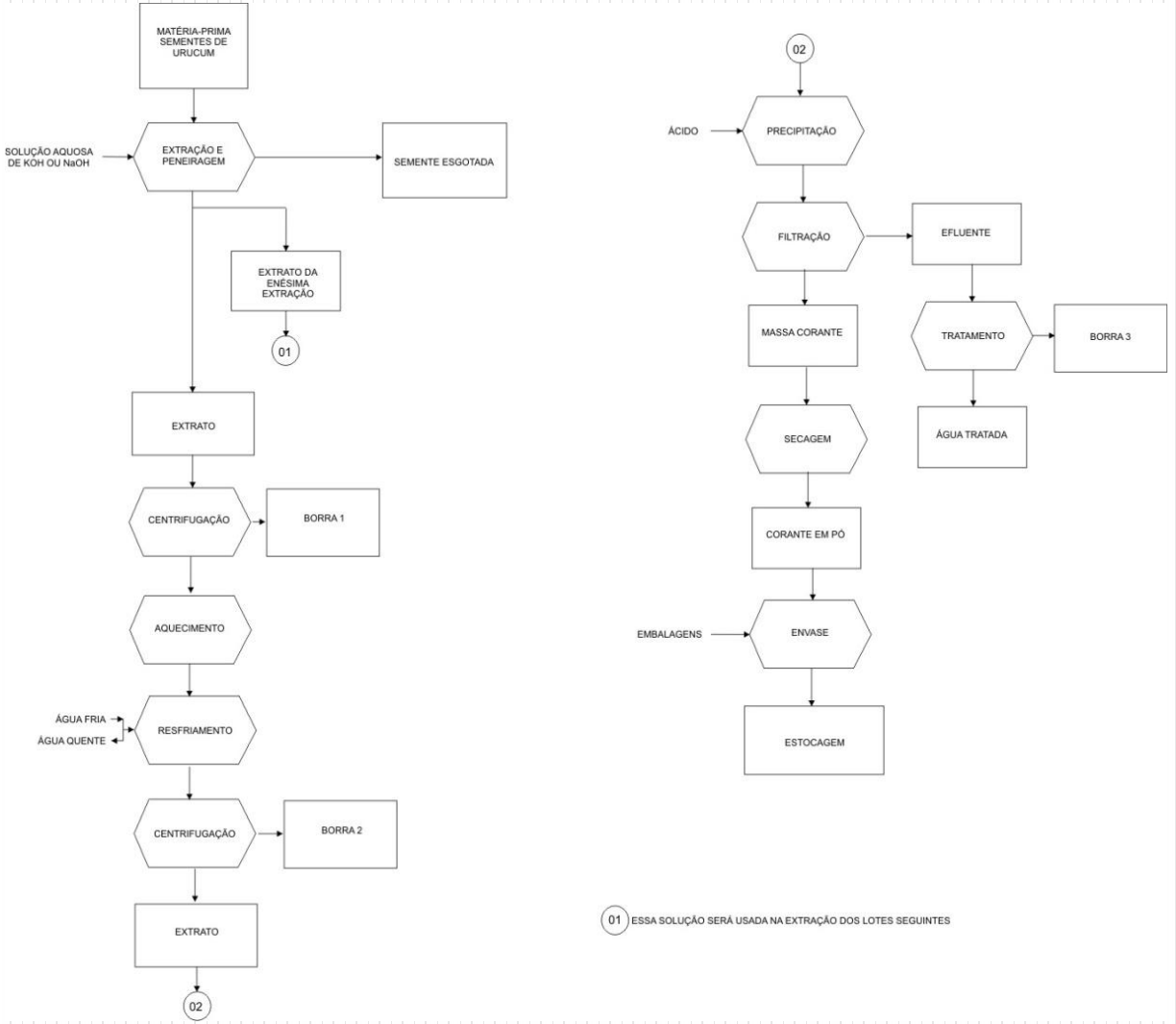


MASSA CORANTE - EXTRAÇÃO COM ÁGUA



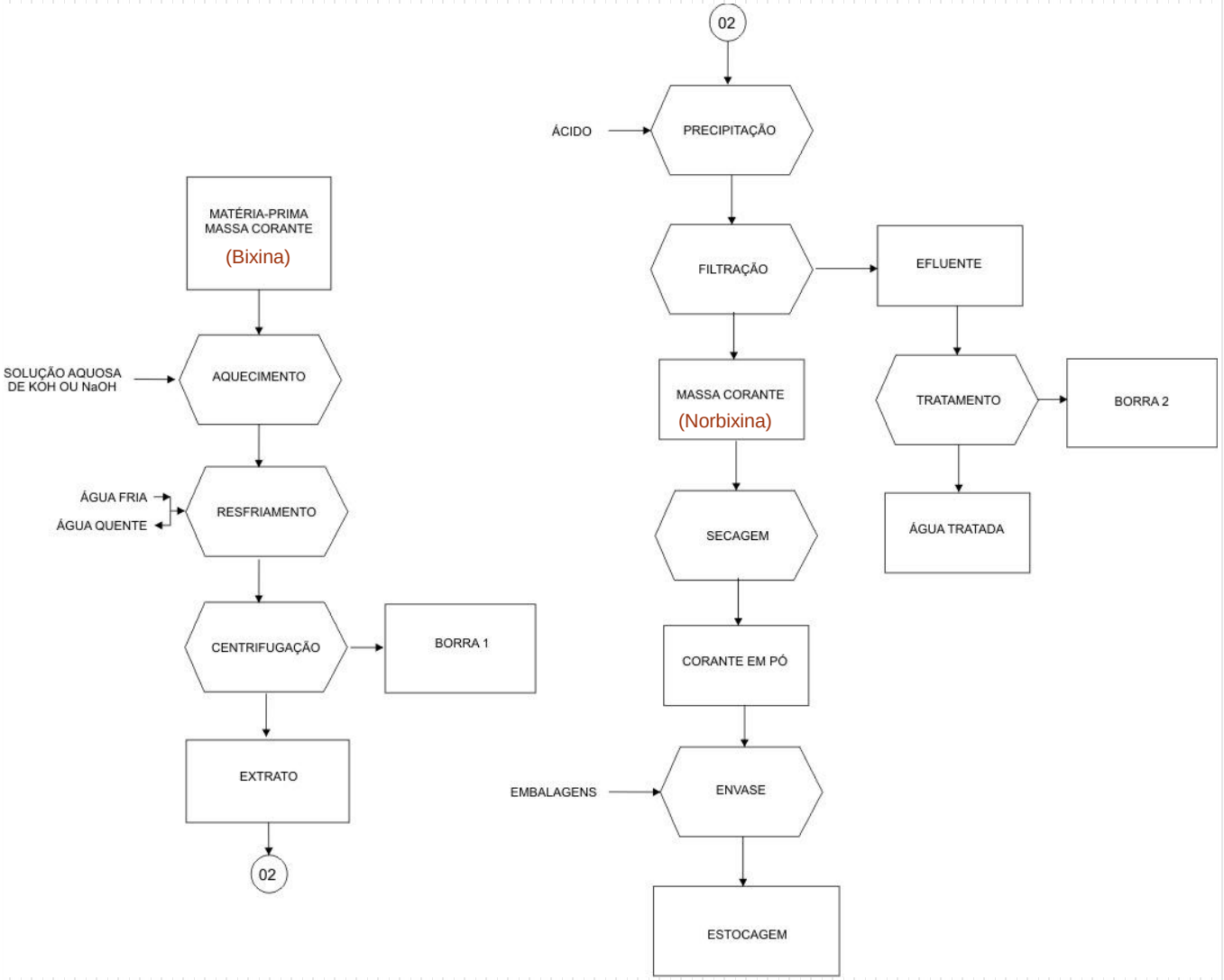
CORANTE EM PÓ

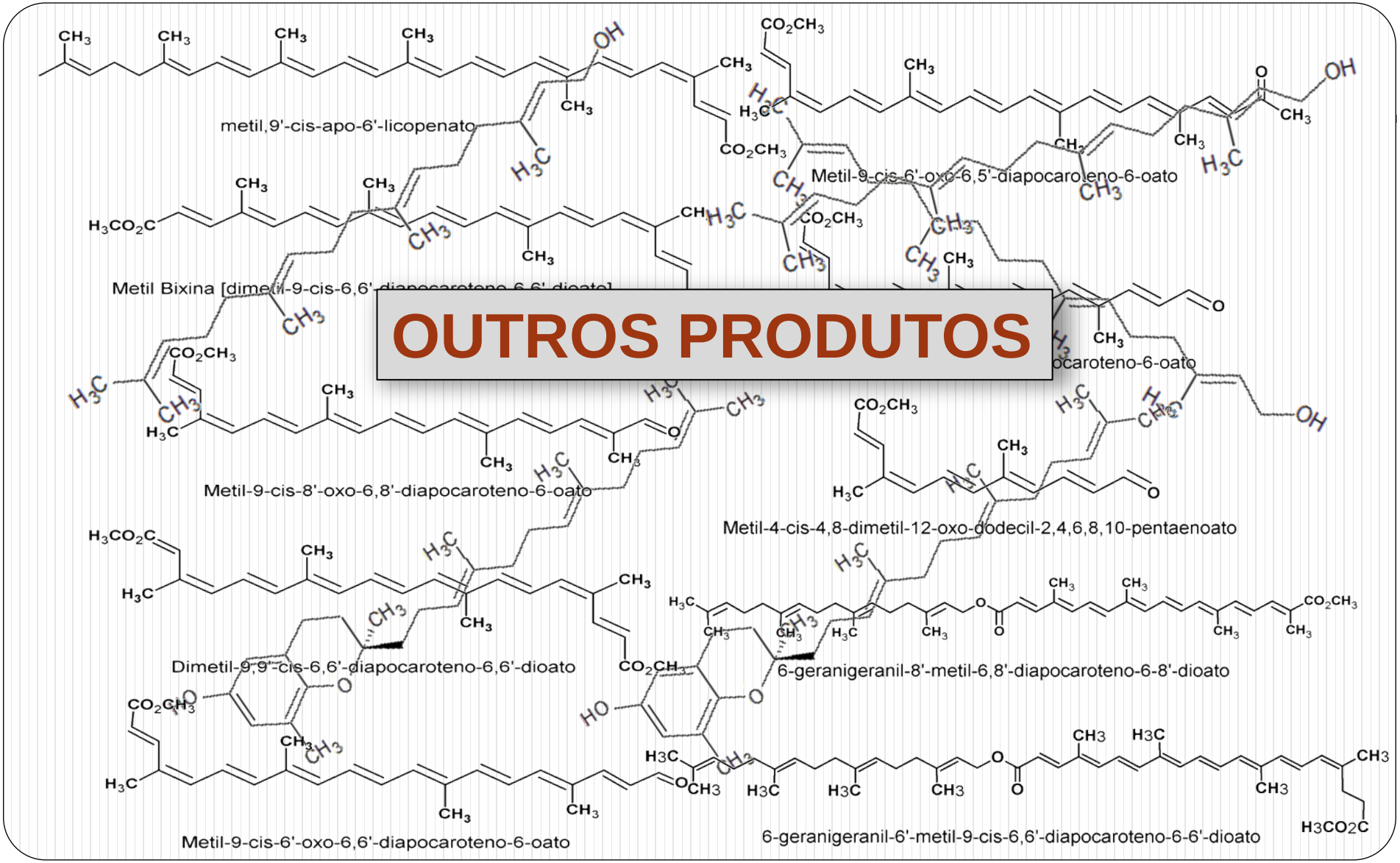
PRODUÇÃO DIRETA (NORBIXINA)



CORANTE EM PÓ

PRODUÇÃO INDIRETA (NORBIXINA)




metil,9'-cis-apo-6'-licopenato
Metil-9-cis-6'-oxo-6,5'-diapocaroteno-6-oato
Metil Bixina [dimetil-9-cis-6,6'-diapocaroteno-6,6'-dioato]
OUTROS PRODUTOS
Metil-9-cis-8'-oxo-6,8'-diapocaroteno-6-oato
Metil-4-cis-4,8-dimetil-12-oxo-dodecil-2,4,6,8,10-pentaenoato
Dimetil-9,9'-cis-6,6'-diapocaroteno-6,6'-dioato
6-geranigeranil-8'-metil-6,8'-diapocaroteno-6-8'-dioato
Metil-9-cis-6'-oxo-6,6'-diapocaroteno-6-oato
6-geranigeranil-6'-metil-9-cis-6,6'-diapocaroteno-6-6'-dioato

"ÓLEO DE URUCUM"

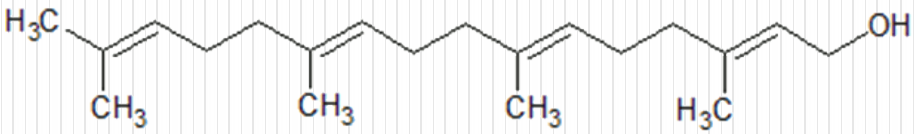
- Terpenos
- Fitosteróis
- Alcoóis graxos
- Vitaminas
- Outros

Rendimento ~ 5%

SEPARAÇÃO DOS COMPONENTES DO ÓLEO DE URUCUM

[0,5g/100g – 2,5g/100g BS]

Geranilgeraniol



all trans-3,7,11,15-tetramethyl-2,6,10,14-hexadecatetraen-1-ol

O geranilgeraniol apresenta uma larga faixa de atividades biológicas como: antimicróbica, antiviral e antitumoral. Esse composto também tem a habilidade de prevenir um grande número de enfermidades como úlceras, doenças neuro-degenerativa, condições relacionadas ao envelhecimento da pele, tromboses, arteriosclerose e imunodeficiências. Além disso o geranilgeraniol é precursor da síntese biológica do Taxol®, que é um potente composto anticâncer comercializado pela Bristol-Myers Squibb Co. com o nome genérico de Paclitaxel.

Fonte: US Patent 6.531.303

PHYTOTHERAPY RESEARCH
Phytother. Res. (2013)
Published online in Wiley Online Library
(wileyonlinelibrary.com) **DOI**: 10.1002/ptr.5055

Antileishmanial Activity of the Essential Oil from *Bixa orellana*

Lianet Monzote,[1]* Marley García,[1] Ramón Scull,[2] Armando Cuellar[2] and William N. Setzer[3]
[1]Parasitology Department, Institute of Tropical Medicine 'Pedro Kourí', Havana, Cuba
[2]Department of Chemistry, Institute of Pharmacy and Food, Havana University, Havana, Cuba
[3]Department of Chemistry, University of Alabama in Huntsville, Huntsville, AL 35899, USA

Leishmaniasis is a neglected tropical disease caused by *Leishmania* protozoa. There is currently no vaccine against leishmaniasis, and chemotherapy remains the only effective control. However, conventional drugs are toxic, expensive, and require long periods of treatment, and resistance to clinical chemotherapeutic agents is emerging. Recent research on plants has shown a successful approach to obtain new antileishmanial alternatives. Herein, the *in vitro* and *in vivo* effects of the essential oil from *Bixa orellana* seeds against *Leishmania amazonensis* were evaluated. A total of 73 compounds were detected by gas chromatography–mass spectrometry analysis, of which ishwarane (18.6%) and geranylgeraniol (9.1%) were the major components. The oil showed activity against intracellular amastigote form (IC_{50} = 8.5 μg/mL), while the cytotoxic concentration was sevenfold higher for the host cells. The ability of *Bixa* oil to control disease progression of established cutaneous leishmaniasis in BALB/c mice was demonstrated, after a treatment with 30 mg/kg by intraperitoneal administration over 14 days. The present study reports for th… *orellana*. Copyright © 2013 John Wiley

Keywords: Leishmania amazonensis; essential oi

Abbreviations: AmB, amphotericin B; CC_{50}, med… inactivated fetal bovine serum; IC_{50}, median inhib… 2,5-diphenyltetrazolium bromide; SI, selectivity in

PHYTOTHERAPY RESEARCH, VOL. 6, 64–67 (1992)

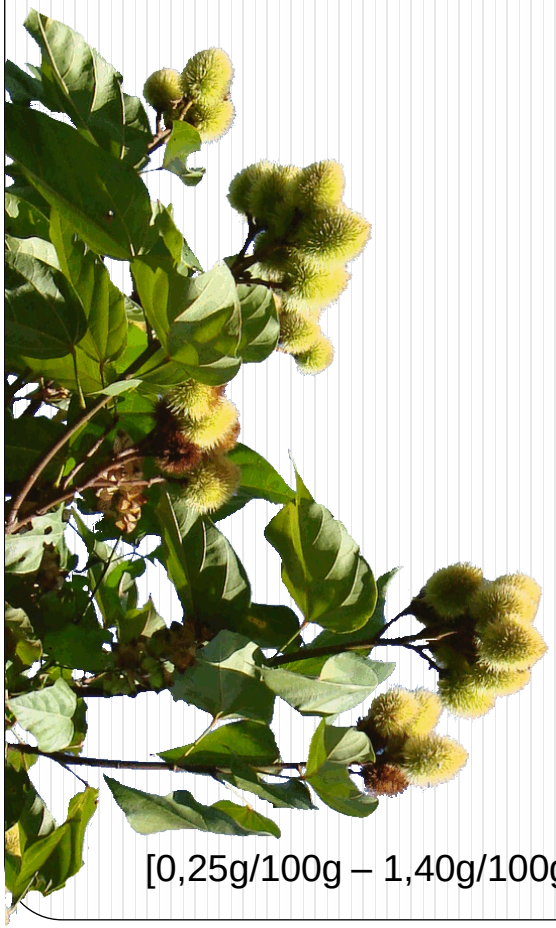
Feeding Deterrency and Insecticidal Effects of Plant Extracts on *Lutzomyia longipalpis*

Antonieta Rojas de Arias and Guillermo Schmeda-Hirschmann*
Instituto de Investigaciones en Ciencias de la Salud (I.I.C.S.), Rio de la Plata y La Gerenza, C.P.251… Paraguay
Adalberto Falcao
Centro de Pesquisas "Rene Rachou", Av. Augusto de Lima 1715, Belo Horizonte, MG, Brazil

Papers impregnated with seventeen extracts and three essential oils derived from nineteen … assayed for insecticidal effect on *Lutzomyia longipalpis* sandflies. Five extracts significa… mortality rates when compared with controls. Six extracts and two essential oils were assessed after application to hamsters for repellency/antifeedant effects on the flies. *Bixa orellana* seed extract and *Bulnesia sarmientoi* essential oil elicited a strong feeding inhibition at 2.50–1.25 μg/cm² skin.

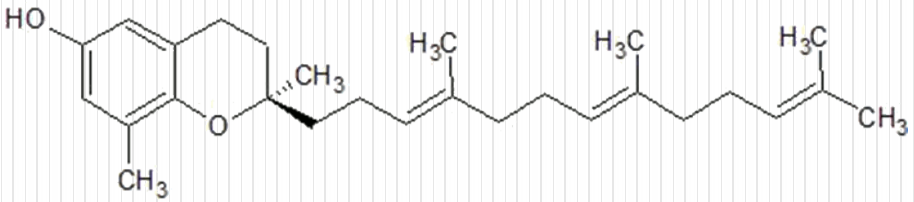
Table 3. Mean (±SD) repellent/antifeedant activity of *B. orellana* and *B. sarmientoi* on *Lutzomyia longipalpis*. *n* = 2

Concentration μg/10 cm² skin	Percentage feeding repellency *Bulnesia sarmientoi*	*Bixa orellana*	AUTAN
25.0	82.3 ± 3.3	87.1 ± 0.6	78.7 ± 11.3
12.5	82.8 ± 0.7	86.1 ± 0.6	89.9 ± 4.7
2.5	93.4 ± 0.6	61.0 ± 0.3	81.2 ± 1.7
Control	20.0 ± 1.8	20.0 ± 1.8	20.0 ± 1.8



[0,25g/100g – 1,40g/100g BS]

Tocotrienol



3,4-dihydro-2,8-dimethyl-2R[(3E,7E)-4,8,12-trimethyl-3,7,11-tridecatrienyl]-2H-1-benzopyran-6ol

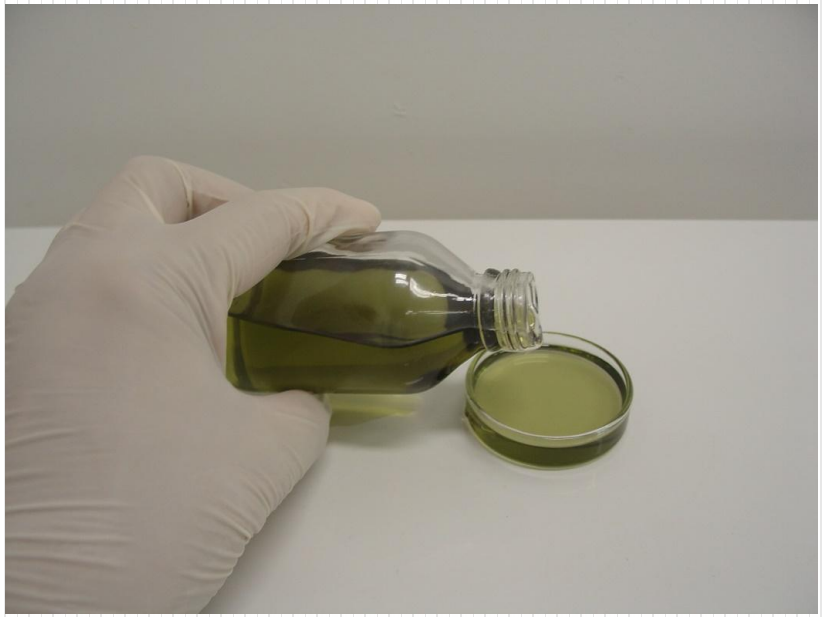
Os tocotrienóis engloba um grupo de compostos com atividade de vitamina E, vital para a nutrição humana. Consumidos de forma oral, os tocotrienóis são biodisponíveis a todos os órgãos vitais. Esses compostos possuem propriedades hipocolesterômico, anticâncer e neuroprotetivas que geralmente não são apresentadas pelos tocoferóis. O consumo oral de tocotrienóis protege contra o danos no célebro causados por AVC.

Fonte: SEM et al, Tocotrienols in health and disease: The other half of natural vitamin E family. Molecular Aspects of Medicine, v.28, p. 692-728, 2007


SOLARAY
DIETARY SUPPLEMENT
TOCOPHEROL-FREE
Annatto Tocotrienols
50 MG
NATURAL SOURCE GAMMA & DELTA TOCOTRIENOLS
60 SOFTGELS
Vitamin Research Products
Since 1979
Annatto Tocotrienols
Dietary Supplement
30 Liquid-Fill Capsules
TESTED FOR QUALITY & PURITY
Annatto Tocotrienols
Doctor's BEST
Best Tocotrienols
50 mg/60 Softgel Capsules
WARNING: Do not use if safety seal is broken or missing. Keep out of reach of children. Keep your licensed health care practitioner informed when using this product.
Directions: Use only as directed. Take one to two softgels daily, preferably with an evening meal. Store in a cool, dry place.
Supplement Facts
Serving Size 1 Softgel
Amount Per Serving
% Daily Value
Tocotrienols (as 90% Delta-Tocotrienol and 10% Gamma-Tocotrienol) (from Annatto)
50 mg
*
*Daily Value not established.
Other Ingredients: Rice Bran Oil, Gelatin, Glycerin and Filtered Water.
Discussion: Our unique formula offers straight Tocotrienols from Annatto. This superior source contains virtually no tocopherols, which


Creme Profitus
Newderm
com extrato de Urucum
Testado dermatologicamente
Peso Líquido 30g
Profitus

REPELENTE NATURAL




BRASIL PRODUZ 13.000
TONELADAS DE
SEMENTES DE
URUCUM