



Other medicinal plants and botanical products from the first edition of the Brazilian Official Pharmacopoeia

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RESUMO: “Outras plantas medicinais e produtos botânicos da 1ª Edição da Farmacopéia Brasileira”. Em trabalho anterior foi descrita a relação das plantas medicinais e produtos botânicos presentes nas quatro edições da Farmacopéia Brasileira (FBRAS). O trabalho discutiu também sobre a substituição das plantas nativas do Brasil por outros produtos importados e sintéticos ao longo das últimas décadas. Neste artigo, são apresentados novos dados sobre plantas medicinais e produtos botânicos presentes na 1ª Edição da FBRAS e em seus dois suplementos.

Unitermos: Plantas medicinais, produtos botânicos, Farmacopéia Brasileira.

ABSTRACT: In a previous work, we described the list of medicinal plants and botanical products present in the four editions of the Brazilian Official Pharmacopoeia (FBRAS). The work also discussed the replacement of native Brazilian plants by imported products and synthetics over the last decades. In this paper, we present new data concerning medicinal plants and botanical products present in the first Edition of the FBRAS and in its two supplements.

Keywords: Medicinal plants, botanical products, Brazilian Official Pharmacopoeia.

INTRODUCTION

In a previous study we presented a list of the medicinal plants and other botanical products described in the four Editions of the Brazilian Official Pharmacopoeia (FBRAS) (Brandão et al., 2006). The work indicated the monographs which describe data concerning intact or pulverized vegetal drugs, as well as the first products obtained from their extraction, as for example, tinctures, fluid extracts, oils, resins, essential oils and balsams. That paper also analyses the transformations within the Pharmacopoeia, focusing on the presence of monographs for native medicinal plants.

In this study, new informations were extracted from the 1st Edition of FBRAS (Silva, 1929) and were organized in order to simplify its use. The informations present in two supplements, which were published later, were also included. The objective of these studies is to orient researchers in verify the efficacy and safety of such products, which were already officialized by the Pharmacopoeia, especially those from native Brazilian plants.

MATERIAL AND METHODS

The 1st Edition of the Pharmacopoeia (Silva, 1929) and its two supplements were searched for new data about medicinal plants and botanical products. Data concerning pharmaceutical formulations as aromatic waters, cataplasms, cigarettes, preserves, elixirs, emulsions, powders, spirits, garglings, melitos (i.e. pharmaceutical preparations containing honey), pills, potions, ointments, soaps, solutes, juices, suppositories, wines and syrups were extracted (Table 1).

Table 2 shows the pharmaceutical formulas constituted by different plant products. Among those are balsams, cerates, elixirs, plasters, emulsions, adhesive plasters, powders, spirits, extracts, fluid extracts, liniments, oils, pills, potions, ointments, dyes, vinegars, wines and syrups. Formulas that contained chemical substances of mineral, animal or synthetic origin were not considered in the present study, except when used as vehicles.

Data about monographs for vegetal drugs (vd), tinctures (tn), fluids extracts (fe) and resins, not included in Brandão et al. (2006), were included in Table 1. Extracts associated to sapé grass (*Imperata exaltata*,

Table 1. Other medicinal plants and botanical/pharmaceutical products from the 1st Edition of FBRAS and supplements^{1,2}.

FAMILY	SCIENTIFIC NAME	POPULAR NAME	PART	PRODUCTS
ALISMATACEAE	<i>Echinodorus macrophyllus</i> (Kunth) Micheli	Chapéu de couro	lvs	vd
APIACEAE	<i>Centella asiatica</i> (L.) Urb. / <i>Hydrocotyle umbellata</i> L.	Acariçoba	lvs	syr
	<i>Ferula assa-foetida</i> L. / <i>F. narthex</i> Boiss.	Assa fétida	latex	gum, pil, em
	<i>Pimpinella anisum</i> L.	Anis	es	spirit
	<i>Thapsia garganica</i> L.	Thapsia	rts	resin
ARECACEAE	<i>Copernicia cerifera</i> (Arruda) Mart.	Carnaúba	lvs	wax
ASCLEPIADACEAE	<i>Marsdenia cundurango</i> Rchb. F.	Condurango	wod	wine
ASTERACEAE	<i>Anacyclus pyrethrum</i> (L.) Cass.	Pyrethro	rts	pw
	<i>Arnica montana</i> L.	Arnica	rts, flo	vd
	<i>Chicorium intybus</i> L.	Chicória	lvs, rts	syr
	<i>Grindelia camporum</i> Greene/ <i>G. cuneifolia</i> Nutt. / <i>G. squarrosa</i> (Pursh) Dunal	Grindelia	lvs, flo	syr
	<i>Lactuca virosa</i> L.	Lactucario	juice	vd, tn
	<i>Matricaria chamomilla</i> L.	Camomila comum	flo	es, fe
	<i>Matricaria recutita</i> L.			
	<i>Mikania glomerata</i> Spreng.	Guaco	lvs	syr
	<i>Mikania hirsutissima</i> DC.	Cipó cabeludo	wpl	vd
BERBERIDACEAE	<i>Berberis laurina</i> (Billb.) ¹	Raiz-de-são-joão, Espinho-de-são-joão	rts	tn, fe, vd
	<i>Podophyllum peltatum</i> L.	Podófilo	rts	resin
BIGNONIACEAE	<i>Anemopaegma mirandum</i> (Cham.) Mart. ex DC	Catuaba	rts	wine
	<i>Jacaranda caroba</i> (Vell.) A.DC.	Caroba	lvs	syr
	<i>Tymnanthus fasciculatus</i> Miers/ <i>T. elegantus</i> Miers	Cipó cravo	stm	vd, wine
BRASSICACEAE	<i>Brassica nigra</i> (L.) W. D. J. Koch.	Mostarda preta	sed	spirit
	<i>Roripa armoracia</i> (L.) Hitch.	Rábano rústico	rts	syr
BURSERACEAE	<i>Protium heptaphyllum</i> (Aubl.) Marchand / <i>P. icicariba</i> (DC.) Marchand	Elemi	oil, resin	vd, ointment
CAMPANULACEAE	<i>Lobelia inflata</i> L.	Lobélia	lvs, flo	vd
CARICACEAE	<i>Carica papaya</i> L.	Mamoeira	flo, fru	syr, elixir
CECROPIACEAE	<i>Cecropia hololeuca</i> Miq.	Imbaúba	shoot	syr
CLUSIACEAE	<i>Garcinia hanburyi</i> Hooker	Goma guta	gum-resin	gum-resin
COMMELINACEAE	<i>Tradescantia diuretica</i> Mart. .	Trapoeraba	wpl	syr
CONVOLVULACEAE	<i>Convolvulus scammonia</i> L.	Escamônea	rts	resin
	<i>Cuscuta umbellata</i> Kunth	Cipó chumbo	wpl	syr
	<i>Exogonium purga</i> (Wender.) Bent.	Jalapa	rts	resin, soap, pill
	<i>Operculina macrocarpa</i> (Linn) Urb.	Jalapa do Brasil	rts	resin, soap
CUCURBITACEAE	<i>Cayaponia tayuya</i> (Vell.) Cogn.	Taiuíá	rts	syr
	<i>Citrullus colocynthis</i> (L.) Schrad.	Colocíntide	fru, sed	vd
	<i>Cucurbita pepo</i> L./ <i>C. maxima</i> Duchesne	Abóbora	fresh sed	emulsion
ERICACEAE	<i>Arctostaphylos uva-ursi</i> (L.) Sprengel	Uva ursina / Bruxulo	lvs	syr
ERYTHROXYLACEAE	<i>Erythroxylum coca</i> Lam. ²	Coca	lvs	tn, wine, elixir
FABACEAE	<i>Acacia catechu</i> (L. f.) Willd / <i>A. suma</i> Buch.-Ham. ex Wall.	Cato	exd	vd
	<i>Acacia senegal</i> (L.) Willd.	Goma arabica	gum	mucilage, syr
	<i>Arachis hypogaea</i> L.			
	<i>Astragalus gummifer</i> Labill.	Goma alcatira	gum	mucilage
	<i>Bowdichia virgilioides</i> Kunth	Sucupira	rind	vd
	<i>Copaifera officinalis</i> (L.) Kuntze/ <i>C. coriacea</i> (Mart.) Kuntze / <i>C. langsdorffii</i> (Desf.)Kuntze / <i>C. oblongifolia</i> (Mart.) Kuntze	Bálsamo de copaiba	balsam	vd
	<i>Erythrina mulungu</i> Mart.ex Benth.	Mulungu	wod	vd
	<i>Glycyrrhiza glabra</i> L.	Alcaçuz	rts	syr
	<i>Lonchocarpus peckolti</i> Wawra	Timbó boticário	wod	ointment
	<i>Piptadenia colubrina</i> (Vell.) Benth.	Angico	wod, gum	vd, mucilage, s
	<i>Pterocarpus marsupium</i> Roxb.	Kino	juice	tn
	<i>Senna alexandrina</i> P. Mill.	Sene	lvs	syr
	<i>Stryphnodendron adstringens</i> (Mart.) Coville	Barbatimão	rind	vd
	<i>Sweetia elegans</i> (Vogel) Benth.	Perobinha campestre		elixir
	<i>Tamarindus indica</i> L.	Tamarindo	fru	pulp, preserves
	<i>Toluijera balsamum</i> L. var. <i>genuina</i> Baill.	Bálsamo de Tolú	balsam	syr, balsam
	<i>Toluijera balsamum</i> L. var. <i>Pereirae</i> (Royle) Baill.	Bálsamo-do-Peru	balsam	balsam
FLACOURTIACEAE	<i>Hydnocarpus kurzii</i> (King) Warburg , <i>H. wightiana</i> Blume	Chaulmoogra	sed	oil
FUMARIACEAE	<i>Fumaria officinalis</i> L.	Fumária	flo	syr
GENTIANACEAE	<i>Gentiana lutea</i> L. / <i>G. pannonica</i> Scop. / <i>G. purpurea</i> L. / <i>G. punctata</i> L.	Genciana	rts	wine, syr
HAMAMELIDACEAE	<i>Hamamelis virginiana</i> L.	Hamamelis	lvs	ointment

KRAMERIACEAE	<i>Krameria argentea</i> Mart. ex Spreng.	Ratânia	rts	syr
LAMIACEAE	<i>Glechoma hederacea</i> L.	Hera terrestre	aerial parts	syr
	<i>Leonotis nepetaefolia</i> (L.) R. Brown	Cordão de frade	wpl	syr
	<i>Mentha piperita</i>	Hortelã pimenta	aerial pts	syr
	<i>Ocimum canum</i> Sims	Alfavaca campestre	lvs / flo	syr
	<i>Peltodon radicans</i> Pohl	Paracari	flo	syr
	<i>Thymus vulgaris</i> L.	Tomilho	flo	syr
LAURACEAE	<i>Cinnamomum</i> sp.	Canela	es	vd, tn
	<i>Cinnamomum zeylanicum</i> J.S.Presl.	Canela do Ceilão	rind	syr
	<i>Nectandra puberula</i> (Schott) Nees	Canela preta	wod	wine
LECYTHIDACEAE	<i>Cariniana brasiliensis</i> Casar.	Jequitibá	wod	garglings
LILIACEAE	<i>Allium sativum</i> L. ¹	Alho	bulbs	tn, vd
	<i>Aloe ferox</i> Mill/ <i>A. barbadensis</i> Mill.	Aloe	juice	juice, supos, pil
	<i>Colchicum autumnale</i> L.	Cólchico	sed	vd, wine
	<i>Schoenocaulon officinale</i> (Schltdl. & Cham.) A. Gray ex Benth.	Cevadilha	sed	ointment
	<i>Urginea maritima</i> (L.) Baker	Scila	bulbs	melito, syr
	<i>Veratrum viride</i> Aiton	Heléboro verde	rts	vd
LINACEAE	<i>Linum usitatissimum</i> L.	Linho, linhaça	sed	cataplasm
LOGANIACEAE	<i>Strychnos nux vomica</i> L.	Noz vômica	sed	vd
MALVACEAE	<i>Althaea officinalis</i> L.	Altéia	rts	syr
	<i>Gossypium herbaceum</i> L.	Algodoeiro	wod, rts	vd, oil
MENISPERMACEAE	<i>Chondodendron platyphyllum</i> (A. Saint-Hil.) Miens	Abútua silvestre	rts	vd
	<i>Jatrochiza palmata</i> (Lam.) Miens	Calumba	rts	vd, wine
MONIMIACEAE	<i>Siparuna apiosyce</i> (Mart. Ex Tul.) A. DC.	Limoeiro bravo	lvs	tn
MORACEAE	<i>Morus nigra</i> L.	Amora	fru	syr
MYRISTICACEAE	<i>Myristica fragrans</i> Houtt	Noz moscada, Macis	sed	vd
MYRTACEAE	<i>Psidium guayava</i> Raddi	Goiabeira	wod	syr
OLEACEAE	<i>Fraxinus ornus</i> L.	Manná	wod	syr, juice
PAPAVERACEAE	<i>Papaver</i> sp.	Ópio	fru	vd, tn, fe, syr, pw
	<i>Papaver rhoeas</i> L.	Papoula Rubra	petals	syr
PINACEAE	<i>Pinus montana</i> Mill.	Pinheiro	shoots	syr
	<i>Pinus palustris</i> Mill.	Terebintina	sesin	pil
PIPERACEAE	<i>Heckeria umbellata</i> (L.) Kunth	Pariparoba	rts	syr
POACEAE	<i>Imperata exaltata</i> (Roxb.) Brongn.	Sapé	rts	vd
	<i>Triticum sativum</i> Lamarck	Trigo	frs	starch
	<i>Zea mays</i> L.	Milho	stiletto	starch, syr
			est.,	
POLYGALACEAE	<i>Polygala senega</i> L.	Poligala	rts	syr
POLYGONACEAE	<i>Rheum palmatum</i> L./ <i>R. officinale</i> Baill.	Ruibarbo	rts	pil
PTERIDACEAE	<i>Adiantum capillus- veneris</i> L.	Avenca	lvs	syr
RANUNCULACEAE	<i>Aconitum napellus</i> L.	Acônito	rts	vd, syr
RHAMNACEAE	<i>Rhamnus purshiana</i> DC.	Cáscara sagrada	wod	vd, elixir
ROSACEAE	<i>Amygdalus communis</i> L. var. <i>amara</i> Ludwig ex DC	Amêndoa amarga	sed	water, oil, medicinal soap
	<i>Amygdalus communis</i> L. var. <i>dulcis</i> (Mill.) DC.	Amêndoa doce	sed	oil, emulsion, medicinal soap
	<i>Cydonia cydonia</i> (L.) H. Karst.	Marmelo	sed	mucilage
	<i>Prunus domestica</i> L.	Ameixa	fru	syr
	<i>Rosa gallica</i> L./ <i>R. damascena</i> Mill.	Rosa rubra	flo	water, preserve, melito, syr
	<i>Rubus rosaefolius</i> Sm.	Framboesa	fru	juice, syr
RUBIACEAE	<i>Chiococca brachiata</i> Ruiz & Pav.	Cainca	rts	wine, syr
	<i>Cinchona calisaya</i> Wedd.	Quina amarela	wod	wine, syr
	<i>Cinchona succirubra</i> Pav. Ex Klotzsch / <i>C. pubescens</i> Vahl	Quina vermelha	wod	wine, syr
	<i>Cephaelis ipecacuanha</i> (Brot.) Stokes / <i>Cephaelis acuminata</i> Karsten	Ipecacuanha	rts	syr, vd
RUTACEAE	<i>Citrus aurantium</i> var. <i>amara</i> L.	Laranja amarga	flo, fru	syr
	<i>Citrus medica</i> L. ¹	Limão	fru	juice, limonade, vd
	<i>Citrus</i> sp	Laranjeira	flor, fru	elixir, potion, syr
	<i>Cusparia angostura</i> (Spreng.) A. Lyons	Angustura / Angustura verdadeira	rnd, cs	syr
SALICACEAE	<i>Casearia sylvestris</i> Sw.	Herva de Bugre, Guassatunga	lvs	syr, fe, vd
SAPINDACEAE	<i>Paullinia cupana</i> Kunth.	Guaraná / Uaraná	sed	Elixir
SAPOTACEAE	<i>Palaquium blanco</i>	Guta Percha	juice	Juice, solute

SCROFULARIACEAE	<i>Digitalis purpurea</i> L.	Dedaleira	lvs	syr
SIMAROUBACEAE	<i>Simarouba amara</i> Aubl.	Simaruba	rnd	syr
SMILACACEAE	<i>Smilax japicanga</i> Griseb.	Japecanga	rts	syr
	<i>Smilax papyracea</i> Duhamel, <i>S. syphilitica</i> Griseb./ <i>S. officinalis</i> Kunth/ <i>Smilax medica</i> Schldtl. & Cham.	Salsaparrilha	rts	syr
SOLANACEAE	<i>Atropa belladonna</i> L.	Beladona	lvs	cigarette, oint, supos, syr
	<i>Datura arborea</i> L. ²	Trombeteira	lvs	vd
	<i>Datura stramonium</i> L.	Estramônio	lvs	cigarette, ointme syr
	<i>Hyoscyamus niger</i> L.	Meimendro	lvs	vd, syr
	<i>Solanum paniculatum</i> L.	Jurubeba	lvs	wine, syr
	<i>Solanum tuberosum</i> L.	Batata	tubercle	starch
STERCULIACEAE	<i>Cola nitida</i> (Vent.) Schott & Endl.	Cola	sed	vd, wine, elixir
	<i>Theobroma cacao</i> L.	Cacau	sed	vd
VALERIANACEAE	<i>Valeriana officinalis</i> L.	Valeriana	rts	syr
VERBENACEAE	<i>Lantana camara</i> L.	Cambará	lvs	syr
	<i>Lippia pseudo-thea</i> Schauer	Chá de pedestre	lvs, flo	syr
	<i>Stachytarpheta dichotoma</i> (Ruiz & Pav.) Vahl	Gervão roxo	lvs	syr
VIOLACEAE	<i>Anchietae salutaris</i> A. Saint-Hil.	Cipó suma	rts	syr
ZINGIBERACEAE	<i>Curcuma longa</i> L. ¹	Cúrcuma	rts	vd, tn
	<i>Zingiber officinalis</i> L.	Gengibre	rts	pw
ZYGOPHYLLACEAE	<i>Guajacum officinalis</i> L./ <i>G. sanctum</i> L.	Guaiaico	wod	resin

Parts: aerial parts; balsam; bulbs; es = essential oils; exd = exsudate; flo = flowers; fru = fruits; gum-resin; juice; latex; lvs = leaves; oil = fixed oil; petals; resin; rnd = rind; rts = roots; sed = seed; shoot; stm = stems; wod = wood; wpl = whole plant.

Products: cataplasm; cigarette; elixir, em = emulsion; es = essential oil; ex = dry extract; fe = fluid-extract; garglings; gum; gum-resin; juice; lemonade; medicinal soap; melito; mucilage; ointment; pil = pills; potion; preserve; pulp; pw = powdered drug; resin; soap; solute; spirit; starch; supos = suppositories; syr = syrup; tn = tincture; vd = vegetal drug; water; wax; wine.

1st Supplement, 2nd Supplement

Poaceae) were also included in Table 1, since they were used exclusively as vehicle.

The English names for each species and their Botanical Families were updated using data from the Missouri Botanical Garden website (www.mobot.org). For those species whose names were not found in the website, the original names described in the FBRAS were maintained.

RESULTS AND DISCUSSION

The Brazilian Pharmacopoeia is the country's official pharmaceutical code, and is responsible for establishing the quality requisites for medicaments. Until the beginning of the 20th century, the Portuguese Pharmacopoeia was adopted in Brazil as the official code of medicaments. Considering the large number of products from the native Brazilian flora not listed in that Pharmacopoeia and which were used in the official medicine at that time, such publication was not appropriated for the country's needs. The pharmacist Rodolfo A.D. Silva organized the 1st Edition of the Pharmacopoeia, which was concluded in 1926 but only published in 1929 (Pereira, 2005; Pereira et al., 1989). It is unnecessary to emphasize the relevance of this work, both in the past as well as in the modern days, since it correlated medicinal plants and botanical products with historical use in traditional practice and the official

medicine of that period. Nowadays, a Permanent Commission organizes the Brazilian Pharmacopoeia, appointed by National Health Surveillance Agency (ANVISA). This group organizes reference standards and national formulary, participate in the formulation and improvement of human resources related to quality control, and support research.

Since the publication of the first Edition of the FBRAS, many studies were developed in order to improve this publication. Some of them, for example, discuss better forms for data inclusion in the monographs (Barreto, 1941; Luz, 1944a, 1944b; Stellfeld, 1935a; 1935b; 1935c, 1938, 1942; Luz, 1937), modification in the described methods (Angely, 1942a; 1942b; Lucas, 1942), and the need for the inclusion of monographs for exotic medicinal plants (Costa, 1941; Luz, 1944c), important native plants (Costa e Lucas, 1941; Cunha, 1940), or even the removal of a product from it (Luz, 1941). These contributions led to the publication of the first and second supplements of FBRAS, in 1941 and 1942, respectively (Lucas, 1943). Some of the monographs included in the supplements were already part of the 1st Edition, but were improved (Stellfeld, 1947).

In the present work we describe the results obtained in a new revision of the first edition of the FBRAS and its two supplements. Table 1 shows data about simple pharmaceutical formulas prepared with

Table 2. Formulas with medicinal plants and other botanical products from the 1st Edition of FBRAS and its Supplements

FORMULAS	PLANT PRODUCTS
ADHESIVE MATERIAL	
Borracha	Bálsamo de copaíba, Terebintina (es)
Diachilão	Goma arábica (pw), Galbano (pw), Terebintina
Thapsia	Pez de borbonha, Terebintina, Thapsia (res)
Vesicante	Cantharide (pw), Oliva (oil), Elemi, Estoraque
BALSAM	
Opodeldoch	Alecrim (es), Tomilho (es)
Vital de Hoffmann	Alfazema (es), Canela (es), Cravo da Índia (es), Limão (es), Moscada (es), Tomilho (es), Bálsamo peruiano
CATAPLASM	
Adesivo	Elemi, Terebintina
Beladona	Beladona (ex), Elemi (res)
Cantharide	Cantharide (pw), Oliva (oil), Elemi, Estoraque
Cantharide composto	Cantharide (pw), Elemi, Estoraque, Cânfora, Euforbio (pw), Oliva (oil)
Diachilão gomado	Emplastro simples, Goma arábica (pw), Galbano (pw), Terebintina
Jurubeba	Jurubeba (ex), Elemi (res)
Mercurial composto	Estoraque, Emplastro simples, Goma arábica (pw), Galbano (pw), Terebintina, Elemi, Alfazema (es)
Pez de borbonha	Pez de borbonha, Amendoim (oil)
Timbó boticário	Timbó boticário (ex), Elemi (res)
COMPOSED POWDER	
Amargas	Centaurea menor, Carqueja amarga, Laranja amarga, Losna, Macela
Aromáticas	Cravo da Índia, Alfazema, Alecrim, Paracari, Alfavaca Campestre, Mangerona, Sálvia, Hortelã pimenta
Carminativas	Anis verde, Coentro, Funcho, Pacova, Cipó cravo
Diuréticas	Trapoeraba, Mate, Milho, Abacateiro, Cipó cabeludo, Sapé
Emolientes	Camomila romana, Guaxima, Malva, Linhaça
Peitorais	Aniz verde, Badiana, Funcho, Malva, Papoula Rubra, Mamoeiro, Paineira, Avenca comum, Guaco, Alfavaca campestre, Câmara, Alteia, Alcaçuz
Purgativas	Aniz verde, Funcho, Sabugueiro, Senna
Sudoríficas	Sabugueiro, Jaborandi, Alcaçuz, Japécanga, Canela sassafrás, Guaiaco, Salsaparrilha
CERATOS	
Galeno	Amendoim (oil), Rosa (water)
Rosado	Rosa (es), Bergamota (es)
Simples	Amendoim (oil), Benjoim (tn eter)
ELIXIR	
Cáscara Sagrada composto	Cáscara Sagrada (fe), Senna (fe), Nogueira (fe), Simples elixir **
Coca e Guaraná	Coca (fe), Guaraná (fe), Simples elixir**
Garus ¹	Canela (esp), Cravo-da-Índia (esp), Flor de laranjeira (esp), Noz moscada (esp), Açafraão (tn), Baunilha (tn), Mirra (tn), Avenca (syr)
Peitoral	Alcaçuz (fe), funcho (water)
Quina composto	Quina (fe), Coca (fe), Cola (fe), Muirapuama (fe), Canela do Ceilão (tn), Garus (ex), Simples elixir **
Terpina	Amêndoa amarga (es), Flor de laranjeira (syr)
EMULSIONS	
Óleo de figado de bacalhau	Goma arábica (pw), Goma alcatira (pw), Canela (water), Amêndoa amarga (es)
Simples	Amêndoas doces, Goma arábica (pw)
EXTRACTS	
Colocíntide composto	Colocíntide (ex), Aloe, Cardamomo (pw), Escamônia (res), Medicinal soap*
Ruibarbo composto	Ruibarbo (ex), Aloe (ex), Jalapa (res), Medicinal soap*
FLUID-EXTRACTS	
Avenca comum	Avenca (pw), Flor de laranjeira (spirit)
Avenca do Canadá	Avenca do Canadá (pw), Flor de laranjeira (spirit)
Caroba composto	Caroba (fe), Salsaparrilha (fe), Cipó suma (fe), Tayuíá (fe), Carnaubeira (fe), Sassafrás (esp)
Cáscara Sagrada Aromático	Cáscara Sagrada (pw), Alcaçuz (pw), Laranja (es)
Espécies peitorais	Aniz verde, Badiana, Funcho, Malva, Papoula rubra, Mamoeiro, Paineira, Avenca comum, Guaco, Alfavaca campestre, Câmara, Alteia, Alcaçuz
Ipecacuanha composto	Ipecacuanha (tn), Senna (fe), Papoula rubra (fe), Flor de laranjeira (esp), Serpão (esp)
Quina composto	Quina (fe), Calumba (fe), Cascarilha (fe), Pau Pereira (fe), Serpentária (fe), Camomila (fe), Carqueja Amarga (fe), Centaurea menor (fe), Losna (fe), Canela do Ceilão (fe)
Rábano composto	Cocleária (fresco), Agrião (fresco), Rábano Rústico (raiz fresca), Trevo aquático (lvs), Laranja amarga (pw), Canela do Ceilão (pw)
Salsaparrilha composto	Salsaparrilha (fe), Japécanga (fe), Sena (fe), Alcaçuz (fe), Anis (fe), Sassafrás (fe)
Scila composto	Scila (fe), Laranja amarga (fe), Quina (fe), Zimbro (fe), Casca D'Anta (fe), Losna (fe)
LINIMENTS	
Beladona	Beladona (fe), Cânfora
Óleo de Croton	Cróton (oleo), Cajepute (es)
Estoraque	Estoraque, Óleo de ricino
Mostarda	Mostarda (es), Cânfora, Óleo de ricino
Ópio	Ópio (tn), Alecrim (es), Tomilho (es)
Rosen	Moscada (butter), Cravo da Índia (es), Zimbro (es), Ricino (oil)

Terebintina	Terebintina (es), Camomila (oil)
Terebintina canforado	Terebintina (es), Óleo canforado
Terebintina Opiado	Terebintina (es), Algodoeiro (oil), Ópio (tn açafroada)
OILS	
Beladona	Beladona (pw), Gergelim (oil)
Camomila	Camomila romana (es), Gergelim (oil)
Camomila canforado	Camomila (es), Óleo canforado
Estramônio	Estramônio, Gergelim (oil)
Meimendro	Meimendro, Gergelim (oil)
Meimendro Composto	Meimendro (oil), Beladona (oil), Estramônio (oil), Alecrim (es), Alfazema (es), Hortelã pimenta (es), Tomilho (es)
Resina de Salsa Hortense	Salsa hortense (pw)
Rícino aromático	Canela (es), Cravo da Índia (es), Óleo rícino
OINTMENT	
Elemi	Elemi, Terebintina
Estoraque	Estoraque (liq), Amendoim (oil), Elemi
Eucaliptol composta ¹	Eucaliptol, Guaiacol, Bálsamo do Perú
Nervina	Alecrim (es), Terebintina (es), Zimbro (es), Moscada (manteiga), Gergelim (oil)
Terebintina	Terebintina, Amendoim (oil)
PILLS	
Aloe	Aloe, Sabão medicinal*
Aloe compostas	Aloe, Escamônia, Jalapa (res), Gengibre (pw), Sabão medicinal*
Aloe e Assa-fétida	Aloe, Assa-fétida
Aloe e ferro	Aloe, Medicinal soap*
Aloe e Goma Guta	Aloe, Goma guta, Aniz (es)
Aloe e Mirra	Aloe, Mirra, Canela do Ceilão (pw)
Aloe e Quina	Aloe, Quina vermelha (ex), Canela do Ceilão (pw)
Aloina e fenolftaleína compostas	Aloina, Ipecacuanha (pw), Beladona (ex), Cáscara sagrada (ex)
Assa fétida	Assa fétida, Medicinal soap*
Carbonato de ferro compostas	Goma alcatira (pw), Alteia (pw)
Catárticas compostas	Colocíntide (ex), Meimendro (ex), Jalapa (res), Medicinal soap*
Cloreto mercurico opiaceae	Ópio (ex), Grama (ex), Alcaçuz (pw)
Colocíntide composta	Colocíntide (ex), Aloe, Jalapa (res), Escamônia (res), Cravo da Índia (es)
Fósforo	Alteia (pw), Goma arábica (pw)
Hidragogas de heim	Dedaleira (pw), Scilla (pw), Goma guta (pw), Goma arábica (pw), Genciana (ex)
Iodeto ferroso	Alteia (pw), Alcaçuz (pw)
Iodeto mercurioso opiacea	Ópio (pw), Alcaçuz (pw)
Jalapa	Jalapa, Jalapa soap
Kermes composta	Guáiacó (pw), Óleo rícino
Meimendro e Valeriana compostas	Meimendro (ex), Valeriana (ex)
Mercuriaes	Rosa (conserva), Alcaçuz (pw)
Podofilina beladonada	Beladona (ex), Sabão medicinal*
Ruibarbo	Ruibarbo (pó), Sabão medicinal*
Ruibarbo compostas	Ruibarbo (pw), Aloe, Mirra, Hortelã pimenta (es), Sabão medicinal*
Valeriano de quinina compostas	Meimendro (ex), Estramônio (ex), Ópio (ex)
Trinitrina	Alteia (pw), Rosa (conserva)
POWDER	
Aromático	Canela do Ceilão (pw), Gengibre (pw), Cardamomo, Noz moscada
Alcaçuz composto	Sene (pw), Alcaçuz (pw), Funcho (es)
Gomoso	Goma arábica (pw), Alcaçuz (pw)
Ipecacuanha opiado	Ipecacuanha (pw), Ópio (pw)
Jalapa composto	Jalapa (pw), Escamônia (pw)
Ruibarbo composto	Ruibarbo (pw), Gengibre (pw)
POTION	
Balsâmica	Balsamo de copaíba, Goma arábica (pw)
Cordial	Canela (tn), Laranja amarga (syr)
Emulsiva gomosa	Amêndoa doce, Amêndoa amarga, Goma alcatira (pw), Flor laranjeira (água)
Emulsiva oleosa	Óleo de amêndoa, Goma arábica (pw), Flor laranjeira (syr)
Gomosa	Flor laranjeira (syr), Goma arábica (pw)
Opiado	Diacódia (syr), Amêndoa doce, Amêndoa amarga, Goma alcatira (pw), Flor laranjeira (água)
Sene tartarizado	Sene (ef), Anis (espírito), Maná
Sene laxativa ¹	Sene, tamarindo (conserva), Anis (esp)
Tônica	Quina (ef), Laranja amarga (syr)
SPIRITS	
Erva Cidreira composto	Erva cidreira (es), Jaçapé (es), Limão(es), Noz moscada (es), Coentro(es), Cravo da Índia(es), Canela (es)
Limão composto	Bergamota (es), Laranja(es), Limão(es), Alfazema(es), Flor de laranjeira (es), Alecrim (es), Benjoim (tn)
Sabão	Sabão medicinal*, alfazema (es)
Terebintina composto	Terebintina (es), Elemi (es), Gálbano (es), Mirra (es), Noz moscada (es), Estoraque (es), Canela do Ceilão (es), Jengibre (es), Cravo da Índia (es)

Vulnerário	Alecrim (es), Alfazema (es), Tomilho(es), Funcho (es), Jaçapê (es), Sassafrás (es), Serpão (es), Arruda (es), Erva cidreira (es), Hortelã pimenta (es)
SYRUPS	
Amêndoas	Amêndoas doce, Amêndoas amargas, Goma arábica (pw), Flor de laranjeira (água)
Bromofórmio composto ¹	Bálsamo de Tolú (syr), Ipecacuanha (tn), Sene (ef), Papoula rubra (ef), Flor de laranjeira (esp), Serpão (esp), Amêndoa amarga (oil), Acônito (tn)
Caroba composto	Caroba (ef), Salsaparrilha (ef), Cipó suma (ef), Tayuiá (ef), Carnaubeira (ef), Sassafrás (esp)
Espécies peitorais	Aniz verde, Badiana, Funcho, Malva, Papoula Rubra, Mamoeiro, Paineira, Avenca comum, Guaco, Alfavaca campestre, Câmara, Alteia, Alcaçuz
Ipecacuanha composto	Ipecacuanha (tn), Senna (ef), Papoula rubra (ef), Flor de Laranjeira (esp), Serpão (esp)
Lactucario	Lactucario (tn), Flor de laranjeira (água)
Lactofosfato de cálcio creosotado ¹	Acônito (tn), Limão (alcoolat.), Bálsamo de Tolú (syr)
Lactucario opiado	Lactucario (syr), Ópio (ef)
Pariparoba composto	Pariparoba (ef), Caroba (ef), Jurubeba (ef), Sene (ef), Herva tostão (ef), Canela (água)
Rábano composto	Cocleária (fresco), Agrião (fresca), Rábano rústico (raiz fresca), Trevo aquático (lvs), Laranja amarga (pw), Canela do Ceilão (pw)
Ruibarbo	Ruibarbo (ef), Canela (espírito)
Ruibarbo aromático	Ruibarbo (pw), Canela do Ceilão (pw), Cravo da Índia (pw), Noz moscada (pw), Sândalo citrino (pw)
Ruibarbo composto	Ruibarbo (pw), Canela do Ceilão (pw), Cravo da Índia (pw), Noz moscada (pw), Sândalo citrino (pw), Chicórea (syr)
Salsaparrilha composto	Salsaparrilha (ef), Japocanga (ef), Senna (ef), Alcaçuz (ef), Anis (ef), Sassafrás (ef)
Scilla composto	Scilla (ef), Polygala (ef)
Sene	Sene (ef), Coentro (espírito)
Sene composto	Sene (ef), Alcaçuz (ef), Anis (espírito)
Sene e Maná	Sene (ef), Alcaçuz (ef), Anis (espírito), Manná (syr)
TINCTURES	
Agrião do Pará composta	Agrião do Pará (pw), Pyrethro (pw)
Aloe composta	Aloe (pw), Açafraão (pw), Agárico branco (pw), Carqueja amarga (pw), Genciana (pw), Ruibarbo (pw), Zedoaria (pw)
Aloe e Mirra	Aloe (pw), Mirra (pw), Alcaçuz (pw)
Amarga	Genciana, Centaurea menor (pw), Laranja amarga (pw), Carqueja (pw), Zedoaria (pw)
Aromática	Canela da China (pw), Gengibre (pw), Galanga (pw), Cravo da Índia (pw), Cardamomo (pw), Pacová (pw)
Benjoim composta	Benjoim (pw), Aloe (pw), Estoraque (liq.), Bálsamo peruviano
Cardamomo composta	Cardamomo (pw), Pacova (pw), Canela do Ceilão (pw), Funcho (pw)
Ferro aromática	Laranja amarga (Tn), Baunilha (Tn), Canela da China (pw), Gengibre (pw), Galanga (pw), Cravo da Índia (pw), Cardamomo (pw), Pacová (pw)
Jalapa composta	Jalapa (pw), Escamônia (pw)
Losna composta	Losna (pw), Carqueja amarga (pw), Cálamo aromático (pw), Genciana (pw), Centaurea menor (pw), Laranja amarga (pw), Canela do Ceilão (pw)
Ópio Açafroada ¹	Ópio (ef), Açafraão (tn), Canela do Ceilão (es), Cravo da Índia (es)
Ópio canforada ¹	Cânfora, Anis (es), Ópio (tn)
Ruibarbo aquosa	Ruibarbo (pw), Canela (água)
Ruibarbo aromática	Ruibarbo (pw), Canela do Ceilão (pw), Cravo da Índia (pw), Noz moscada (pw), Sândalo citrino (pw)
VINEGAR	
Vinagre aromático	Alecrim (es), Alfazema (es), Canela (es), Hortelã pimenta (es), Zimbro (es), Cravo da Índia (es), Limão (es)
WINES	
Dedaleira composto	Dedaleira (ef), Scilla (ef), Zimbro (ef)
Quina composto	Quina (ef), Calumba (ef), Cascariilha (ef), Pau Pereira (ef), Serpentária (ef), Camomila (ef), Carqueja Amarga (ef), Centaurea menor (ef), Losna (ef), Canela do Ceilão (ef)
Ruibarbo composto	Ruibarbo (ef), Laranja amarga (ef), Cardamomo (tn)
Scilla composto	Scilla (ef), Laranja amarga (ef), Quina (ef), Zimbro (ef), Casca D'Anta (ef), Losna (ef)

* Medicinal soap: *Gossypium* or *Amygdalus* oils with sodium hydroxide.

**Simples elixir: Laranja amarga (es, alcoolat.), Flor de laranjeira (spirit).

medicinal plants and botanical products and Table 2 describes the formulations constituted by more plants and products.

The use in conventional medicine of several native medicinal plants was officialized by their inclusion on the 1st Edition of the FBRAS. Many of those formulas were excluded from the 2nd and 3rd editions of FBRAS due to, among other factors, pressures from the international pharmaceutical industry, which was interested in promoting their products, specially the synthetic ones. It is possible that the preparations described in the 1st Edition of the FBRAS present some therapeutic efficacy, since they were used for centuries in the official and traditional medicine. These plants and products need to be evaluated through pharmacological and toxicological assays (validation studies). It is also important to evaluate the combination of products in the formulations, which could result in improved pharmacologic efficacy.

CONCLUSION

The results of this study, in association with the previous one, reveal that hundreds of medicinal species, including native ones, were officialized in the past through inclusion in the 1st Edition of the FBRAS. Studies aiming at the validation of these species should be prioritized and stimulated.

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REFERENCES

- Angely JA 1942a. Estudo comparado dos pós e dos tamises das Farmacopéias vigentes: contribuição e revisão da Farmacopéia Brasileira. *Trib Farm 10*: 29-30.
- Angely JA 1942b. Estudo comparado dos pós e dos tamises das Farmacopéias vigentes: contribuição e revisão da Farmacopéia Brasileira. *Trib Farm 10*: 49-59.
- Barreto LM 1941. Sugestões à comissão de revisão da Farmacopéia. *Rev Bras Farm 22*: 700-702.
- Brandão MGL, Cosenza GP, Moreira RA, Monte-Mór RLM 2006. Medicinal plants and other products from the Brazilian Official Pharmacopoeia. *Rev Bras Farmacogn 16*: 408-420.
- Costa OA 1941. Monografias para o suplemento da Farmacopéia Brasileira. Cúrcuma. *Trib Farm 9*: 151-154.
- Costa OA, Lucas V 1941. Monografias para o suplemento da Farmacopéia Brasileira. Raiz de São João. *Trib Farm 9*: 180-185.
- Cunha NS 1940. As salsaparrilhas em face da Farmacopéia Brasileira. *Trib Farm 8*: 105-112.
- Lucas V 1942. A forma extrato fluido: sua importância na prática médica e farmacêutica. *Trib Farm 10*: 114-115.
- Lucas V 1943. O primeiro suplemento da Farmacopéia Brasileira. *Rev Bras Farm 24*: 280-282.
- Luz H 1937. Xarope de alteia: contribuição à revisão da Farmacopéia Brasileira. *Trib Farm 5*: 80-82.
- Luz H 1941. Justificações para supressão na Farmacopéia do extrato fluido de ópio e do xarope de lactucário opiado. *Rev Bras Farm 22*: 297-300.
- Luz H 1944a. Água inglesa da Farmacopéia. *Trib Farm 12*: 105-106.
- Luz H 1944b. Revisão da Farmacopéia: Água vienense. *Trib Farm 12*: 45-46.
- Luz H 1944c. Guiné ou pipi. *Trib Farm 12*: 145-147.
- Pereira AS 2005. Farmacêutico Rodolfo Albino Dias da Silva. 2^a ed. Maringá: Conselho Regional de Farmácia do Rio de Janeiro. 91 p.
- Pereira NA, Siqueira-Jaccoud J, Ruppelt B, Mattos SMP 1989 As plantas medicinais brasileiras estudadas por Rodolfo Albino Dias da Silva. *Rev Bras Farm 70*: 29-33.
- Silva RAD 1929. *Pharmacopoeia dos Estados Unidos do Brasil*. 1^a ed. São Paulo: Nacional.
- Stellfeld C 1935a. Apontamentos farmacognósticos e comentários à Farmacopéia Brasileira. *Trib Farm 3*: 3-5.
- Stellfeld C 1935b. Apontamentos farmacognósticos e comentários à Farmacopéia Brasileira. *Trib Farm 3*: 118-120.
- Stellfeld C 1935c. Apontamentos farmacognósticos e comentários à Farmacopéia Brasileira. *Trib Farm 3*: 153-156.
- Stellfeld C 1938. Apontamentos farmacognósticos e comentários à Farmacopéia Brasileira. *Trib Farm 6*: 91-92.
- Stellfeld C 1942. O extrato-fluido da Farmacopéia Brasileira. *Rev Bras Farm 23*: 453-460.
- Stellfeld C 1947. O segundo suplemento da Farmacopéia Brasileira. *Trib Farm 15*: 101-104.