



Technical Report

ISO/TR 23975

Traditional Chinese medicine — Priority list of single herbal medicines for developing standards

*Médecine traditionnelle chinoise — Liste prioritaire de
médicaments à base de plantes isolées pour l'élaboration de normes*

**Second edition
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 249, *Traditional Chinese medicine*.

This second edition cancels and replaces the first edition (ISO/TR 23975:2019) which has been technically revised.

The main changes are as follows:

- in [5.1](#), the international trading value of herbal medicines was replaced by the international trade volume as a high priority principle;
- in [5.4](#), a new principle of high priority was added;
- in [6.1](#), the data of international trade volume for single herbal medicines was updated; and [Table 1](#) was sorted by international trade volume;
- in [6.2](#), the data of single herbal medicines recorded in pharmacopoeias was updated; and [Table 2](#) was sorted by occurrence count;
- in [6.4](#), the data of the use frequency for single herbal medicines in formula recorded in Pharmacopoeias and national formula was added; and [Table 4](#) was sorted by occurrence count;
- in [6.5](#), the data of international standard for single herbal medicines that have been published or are under development was updated, and listed in [Table 5](#);
- in [6.6](#), single herbal medicines that are listed as endangered species in CITES were updated;
- in [7.1](#), the weight coefficient of criteria for developing single herb standards based on recent expert consultation was updated, and listed in [Table 7](#);
- in [7.2](#), the range of priority rank for developing single herb standards based on recent expert consultation was updated, and listed in [Table 8](#);
- in [Clause 8](#), [Table 9](#) was updated;

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— in [Annex A, Table A.1](#) was updated.

In addition to text written in the official ISO languages (English, French, Russian), this document gives text in Chinese. This text is published under the responsibility of the Member Body for China (SAC) and is given for information only. Only the text given in the official languages can be considered as ISO text.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Being a significant part of traditional medicine systems and general health services, traditional Chinese medicine is estimated to be used in over 180 countries and regions around the world. This is reflected by the statistics cited from the WHO report that there are 4 billion people in the world using herbal medicines, accounting for 80 % of the total world population. Asia, North America and Europe are regarded as the major markets for herbal medicines. Moreover, incomplete Chinese customs statistics show that the import and export of herbal medicine products in China was worth over 1,61 billion USD in 2023. Therefore, it is very important to develop globally harmonized standards in order to ensure the safety of consumers. In particular, those herbal medicines which have been reported to cause adverse drug reactions (ADR) are drawing much attention from national health administrations.

There are a great number of single herbs on the market; for instance, 618 kinds of herbs have been included in the *Pharmacopoeia of the People's Republic of China*. Currently, organizations, regions and countries including ISO, WHO, the European Union, China, Japan, Korea, the USA, the UK and Thailand are making valuable contributions by developing standards for single herbs. This document presents a list of single herbal medicines in order of priority for the purposes of developing standards on single herbs in a scientific and orderly manner. This document can be used as a reference by any organization wishing to develop standards on single herbal medicines.

The following factors have been considered in setting the priorities:

- the trade volume of each single herbal medicine in the global market;
- whether the herbal medicine is recorded by the *Pharmacopoeia of the People's Republic of China*, the *European Pharmacopoeia*, the *Japanese Pharmacopoeia*, the *Japanese standards for non-Pharmacopoeial crude drugs*, the *Korean Pharmacopoeia*, the *Korean Herbal Pharmacopoeia*, the *Thai Herbal Pharmacopoeia*, *Hong Kong Chinese Materia Medica Standards* or the *United States Pharmacopoeia*;
- whether there are potential risks from its use;
- whether the herbal medicine is used in formula by the *Pharmacopoeia of the People's Republic of China*, the *Japanese Pharmacopoeia*, the *Korean Pharmacopoeia*, or other national formula;
- whether the herbal medicine is listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- opinions from experts.

Traditional Chinese medicine — Priority list of single herbal medicines for developing standards

1 Scope

This document provides a reference of single herbal medicines in order of their priority in the development of international standards.

This document also provides a reference of the principles and the methodology for the priority evaluation of single herbal medicines.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Document structure

4.1 The principles for determining the priority of single herbal medicines are established in [Clause 5](#).

4.2 Single herbal medicines and the data of evaluation indexes are listed in [Clause 6](#).

4.3 The methods of data statistics, including the weight coefficient of evaluation indexes and the range of priority rank, are determined in [Clause 7](#).

4.4 The priority list of single herbal medicines is established in [Clause 8](#) based on the evaluation indexes data in [Clause 6](#) and the statistical methods in [Clause 7](#). The non-priority list of single herbal medicines is provided in [Annex A](#).

5 Principles

5.1 Herbal medicines which have a large international trade volume are listed as high priority in [Table 1](#).

5.2 Common herbal medicines recorded in the *Pharmacopoeia of the People's Republic of China*, the *European Pharmacopoeia*, the *Japanese Pharmacopoeia*, the *Japanese standards for non-Pharmacopoeial crude drugs*, the *Korean Pharmacopoeia*, the *Korean Herbal Pharmacopoeia*, the *Thai Herbal Pharmacopoeia*, *Hong Kong Chinese Materia Medica Standards*, and the *United States Pharmacopoeia* are listed as high priority in [Table 2](#).

5.3 Herbal medicines that have safety concerns, such as those widely reported to cause adverse drug reactions (ADR), are listed as high priority in [Table 3](#).

5.4 Herbal medicines which have a high frequency of use in formula recorded in the *Pharmacopoeia of the People's Republic of China*, the *Japanese Pharmacopoeia*, the *Korean Pharmacopoeia*, and other national formula are listed as high priority in [Table 4](#).

5.5 Single herbal medicines for which there are existing ISO standards are listed as high priority in [Table 5](#).

5.6 Herbal medicines which are included in CITES are listed for reference in [Table 6](#).

6 Evaluation indexes

6.1 International trade

[Table 1](#) provides information on the 100 single herbal medicines which had the largest international trade volume in China and Japan from 2017 to 2021 (sorted by international trade volume).

Table 1 — The top 100 single herbal medicines which had the largest international trade volume in China and Japan from 2017 to 2021

No.	Rank	Herbal name	Pharmaceutical name	Chinese name	Chinese pinyin	English name	International trade volume (kg)
1	1	<i>Dimorcarpus longan</i> arill	longan arillus	龙眼肉	Longyanrou	longan aril	524 270 778
2	2	<i>Glycyrrhiza uralensis</i> root and rhizome/ <i>Glycyrrhiza inflata</i> root and rhizome/ <i>Glycyrrhiza glabra</i> root and rhizome	glycyrrhizae radix et rhizoma	甘草	Gancao	licorice root	78 028 000
3	3	<i>Ziziphus jujuba</i> fruit	jujubae fructus	大枣	Dazao	Chinese date	77 762 954
4	4	<i>Lycium barbarum</i> fruit	lycii fructus	枸杞子	Gouqizi	barbary wolfberry fruit	61 256 785
5	5	<i>Curcuma longa</i> rhizome	curcumae longae rhizoma	姜黄	Jianghuang	turmeric	39 770 586
6	6	<i>Poria cocos</i> sclerotium	poria	茯苓	Fuling	Indian bread	32 821 447
7	7	<i>Rehmannia glutinosa</i> root	rehmanniae radix	地黄	Dihuang	rehmannia root	24 405 600
8	8	<i>Astragalus membranaceus</i> var. <i>mongholicus</i> root/ <i>Astragalus membranaceus</i> root	astragli radix	黄芪	Huangqi	milkvetch root	24 056 566
9	9	<i>Paeonia lactiflora</i> root	paeoniae radix alba	白芍	Baishao	white peony root	23 660 308
10	10	<i>Angelica sinensis</i> root	angelicae sinensis radix	当归	Danggui	Chinese angelica	22 763 112
11	11	<i>Nelumbo nucifera</i> seed	nelumbinis semen	莲子	Lianzi	lotus seed	22 429 217
12	12	<i>Prunus armeniaca</i> var. <i>ansu</i> seed/ <i>Prunus sibirica</i> seed/ <i>Prunus mandshurica</i> seed/ <i>Prunus armeniaca</i> seed	armeniacaese semen amarum	苦杏仁	Kuxingren	bitter apricot seed	21 272 374
13	13	<i>Ligusticum chuaxiong</i> rhizome	chuaxiong rhizoma	川芎	Chuaxiong	Szechwan lovage rhizome	17 669 422
14	14	<i>Atractylodes macrocephala</i> rhizome	attractylodis macrocephalae rhizoma	白术	Baizhu	largehead atractylodes rhizome	16 158 735
15	15	<i>Chrysanthemum morifolium</i> capitulum/ <i>Chrysanthemum indicum</i> capitulum	chrysanthemi flos/chrysanthemi indiciflos	菊花/野菊花	Juhua/Yejuhua	chrysanthemum flower/wild chrysanthemum flower	14 155 600
16	16	<i>Pinellia ternata</i> tuber	pinelliae rhizoma	半夏	Banxia	pinellia tuber	13 743 242

Note: Data from China Customs and Japanese source.

Table 1 (continued)

No.	Rank	Herbal name	Pharmaceutical name	Chinese name	Chinese pinyin	English name	International trade volume (kg)
17	17	<i>Scutellaria baicalensis</i> root	scutellariae radix	黄芩	Huangqin	baical skullcap root	11 334 012
18	18	processed <i>Rehmannia glutinosa</i> root	rehmanniae radix praeparata	熟地黄	Shudihuang	prepared rehmannia root	11 087 029
19	19	<i>Rheum palmatum</i> root and rhizome/ <i>Rheum tanguticum</i> root and rhizome/ <i>Rheum officinale</i> root and rhizome	rhei radix et rhizoma	大黄	Dahuang	rhubarb	10 829 944
20	20	<i>Codonopsis pilosula</i> root/ <i>Codonopsis pilosula</i> var. <i>modesta</i> root/ <i>Codonopsis tangshen</i> root	codonopsis radix	党参	Dangshen	tangshen	10 768 612
21	21	<i>Paeonia lactiflora</i> root/ <i>Paeonia veitchii</i> root	paeoniae radix rubra	赤芍	Chishao	red peony root	10 308 069
22	22	<i>Glehnia littoralis</i> root	glehniae radix	北沙参	Beishashen	coastal glehnia root	9 467 180
23	23	<i>Panax ginseng</i> root and rhizome	ginseng radix et rhizoma	人参	Renshen	ginseng	9 272 878
24	24	<i>Panax quinquefolium</i> root	panacis quinquefolii radix	西洋参	Xiyangshen	American ginseng	9 062 388
25	25	<i>Eucommia ulmoides</i> bark	eucommiae cortex	杜仲	Duzhong	eucommia bark	7 918 769
26	26	<i>Atractylodes lancea</i> rhizome/ <i>Atractylodes chinensis</i> rhizome	atractylodis rhizoma	苍术	Cangzhu	atractylodes rhizome	7 141 995
27	27	<i>Ephedra sinica</i> stem/ <i>Ephedra intermedia</i> stem/ <i>Ephedra equisetina</i> stem	ephedrae herba	麻黄	Mahuang	ephedra	6 757 413
28	28	<i>Cinnamomum cassia</i> bark	cinnamomi cortex	肉桂	Rougui	cassia bark	6 383 391
29	29	<i>Sinomenium acutum</i> stem/ <i>Sinomenium acutum</i> var. <i>cinereum</i> stem	sinomenii caulis	青风藤	Qing-fengteng	orientvine stem	6 373 600
30	30	<i>Boswellia carterii</i> resin/ <i>Boswellia bhawdajiana</i> resin	olibanum	乳香	Ruxiang	olibanum	5 788 700
31	31,5	<i>Commiphora malmol</i> resin/ <i>Commiphora myrrha</i> resin	myrrha	没药	Moyao	myrrh	5 788 305
32	31,5	<i>Daemonorops draco</i> fruit resin	draconis sanguis	血竭	Xuejie	dragon's blood	5 788 305
33	33	<i>Bupleurum chinense</i> root/ <i>Bupleurum scorzonerifolium</i> root	bupleuri radix	柴胡	Chaihu	Chinese thorowax root	5 548 577
34	34	<i>Pueraria lobata</i> root	puerariae lobatae radix	葛根	Gegen	kudzuvine root	5 049 986
35	35	<i>Alisma orientale</i> tuber	alismatis rhizoma	泽泻	Zexie	oriental waterplantain rhizome	5 033 389
36	36	<i>Zanthoxylum nitidum</i> root	zanthoxyli radix	两面针	Liangmian-zhen	shinyleaf pricklyash root	4 407 279
37	37	<i>Paeonia suffruticosa</i> root bark	moutan cortex	牡丹皮	Mudanpi	tree peony bark	4 162 616
38	38	<i>Citrus reticulata</i> pericarp	citri reticulatae pericarpium	陈皮	Chenpi	dried tangerine peel	4 099 357
39	39	<i>Ophiopogon japonicus</i> root tuber/ <i>Liriope muscari</i> root/ <i>Liriope spicata</i> var. <i>prolifera</i> root	ophiopogonis radix/liriope radix	麦冬/山麦冬	Maidong/Shanmaidong	dwarf lilyturf tuber/liriope root tuber	3 827 440
40	40	<i>Platycodon grandiflorum</i> root	platycodonis radix	桔梗	Jiegeng	platycodon root	3 618 978
41	41	<i>Gardenia jasminoides</i> fruit	gardeniae fructus	梔子	Zhizi	cape jasmine fruit	3 500 354

Note: Data from China Customs and Japanese source.

Table 1 (continued)

No.	Rank	Herbal name	Pharmaceutical name	Chinese name	Chinese pinyin	English name	International trade volume (kg)
42	42	<i>Magnolia officinalis</i> bark/ <i>Magnolia officinalis</i> var. <i>biloba</i> bark	magnoliae officinalis cortex	厚朴	Houpo	officinal magnolia bark	3 442 692
43	43	<i>Polyporus umbellatus</i> scler- otium	polyporus	猪苓	Zhuling	chuling	3 347 709
44	44	<i>Phellodendron amurense</i> bark/ <i>Phellodendron chinensis</i> bark	phellodendri chinens- is cortex/phelloden- dri amurensis cortex	黄柏/关黄柏	Huangbo/ Guanhuang- bo	Chinese cork- tree/amur cork- tree	3 297 263
45	45	<i>Saposhnikovia divaricata</i> root	saposhnikoviae radix	防风	Fangfeng	divaricate saposhnikovia root	3 137 656
46	46	<i>Cornus officinalis</i> sarcocarp	corni fructus	山茱萸	Shanzhuyu	asiatic cornelian cherry fruit	3 097 242
47	47	<i>Perilla frutescens</i> leaf	perillae folium	紫苏叶	Zisuye	perilla leaf	3 072 478
48	48	<i>Asarum heterotropoides</i> var. <i>mandshuricum</i> root and rhi- zome/ <i>Asarum sieboldii</i> var. <i>seoulense</i> root and rhizome/ <i>Asarum sieboldii</i> root and rhizome	asari radix et rhi- zoma	细辛	Xixin	Manchurian wildginger root	3 030 735
49	49	<i>Acanthopanax senticosus</i> root and rhizome or stem	acanthopanax senti- cosi radix et rhizoma seu caulis	刺五加	Ciwujia	manyprickle acanthopanax	3 012 609
50	50	<i>Mentha haplocalyx</i> herb	menthae haplocalycis herb	薄荷	Bohe	peppermint	2 991 857
51	51	processed <i>Aconitum car- michaelii</i> daughter root	aconiti lateralis radix praeparata	附子	Fuzi	prepared com- mon monkshood daughter root	2 972 724
52	52	<i>Citrus aurantium</i> fruit/ <i>Citrus sinensis</i> fruit	aurantii fructus immaturus	枳实	Zhishi	immature orange fruit	2 921 872
53	53	<i>Schizonepeta tenuifolia</i> herb	schizonepetae herba	荆芥	Jingjie	fineleaf schizo- nepeta herb	2 915 433
54	54	<i>Schisandra chinensis</i> fruit/ <i>Schisandra sphenanthera</i> fruit	schisandrae chinens- is fructus/schisan- drae sphenantherae fructus	五味子/南五 味子	Wuweizi/ Nanwuweizi	Chinese magnoli- avine fruit/south- ern magnoliavine fruit	2 891 974
55	55	<i>Forsythia suspensa</i> fruit	forsythiae fructus	连翘	Lianqiao	weeping forsyth- ia capsule	2 887 487
56	56	<i>Plantago asiatica</i> seed/ <i>Plan- tago depressa</i> seed	plantaginis semen	车前子	Cheqianzi	plantain seed	2 837 129
57	57	<i>Ziziphus jujuba</i> var. <i>spinosa</i> seed	ziziphi spinosae semen	酸枣仁	Suanzaoren	spine date seed	2 788 106
58	58	<i>Achyranthes bidentata</i> root/ <i>Cyathula officinalis</i> root	achyranthis bidentat- ae radix/cyathulae radix	牛膝/川牛膝	Niuxi/ Chuanniuxi	twotoothed achyranthes root/medicinal cyathula root	2 779 128
59	59	<i>Erodium stephanianum</i> herb/ <i>Geranium wilfordii</i> herb/ <i>Geranium carolinianum</i> herb	erodii herba/geranii herba	老鹳草	Laohecao	common heron's bill herb/wilford granesbill herb	2 741 189
60	60	<i>Anemarrhena asphodeloides</i> rhizome	anemarrhenae rhizoma	知母	Zhimu	common anemar- rhena rhizome	2 699 586
61	61	<i>Epimedium brevicornu</i> leaf/ <i>Epimedium sagittatum</i> leaf/ <i>Epimedium pubescens</i> leaf/ <i>Epimedium koreanum</i> leaf	epimedii folium	淫羊藿	Yinyanghuo	epimedium leaf	2 646 248
62	62	<i>Akebia quinata</i> stem/ <i>Akebia trifoliata</i> stem/ <i>Akebia trifo- liata</i> var. <i>australis</i> stem	akebiae caulis	木通	Mutong	akebia stem	2 613 995

Note: Data from China Customs and Japanese source.

Table 1 (continued)

No.	Rank	Herbal name	Pharmaceutical name	Chinese name	Chinese pinyin	English name	International trade volume (kg)
63	63	<i>Sophora tonkinensis</i> root and rhizome	sophorae tonkinensis radix et rhizoma	山豆根	Shandougen	Vietnamese sophora root	2 611 657
64	64	<i>Cimicifuga heracleifolia</i> rhizome/ <i>Cimicifuga dahurica</i> rhizome/ <i>Cimicifuga foetida</i> rhizome	cimicifugae rhizoma	升麻	Shengma	largetrifolious bugbane rhizome	2 603 366
65	65	<i>Corydalis yanhusuo</i> tuber	corydalis rhizoma	延胡索	Yanhusuo	yanhusuo	2 588 529
66	66	<i>Polygala tenuifolia</i> root/ <i>Polygala sibirica</i> root	polygalae radix	远志	Yuanzhi	thinleaf milkwort root	2 580 532
67	67	<i>Euodia rutaecarpa</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>officinalis</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>bodinieri</i> fruit	euodiae fructus	吴茱萸	Wuzhuyu	medicinal euodia fruit	2 571 413
68	68	<i>Magnolia biondii</i> flower bud/ <i>Magnolia denudata</i> flower bud / <i>Magnolia sprengeri</i> flower bud	magnoliae flos	辛夷	Xinyi	biond magnolia flower	2 565 442
69	69	<i>Cyperus rotundus</i> rhizome	cyperi rhizoma	香附	Xiangfu	nutgrass galin-gale rhizome	2 560 798
70	70	<i>Hyoscyamus niger</i> seed	hyoscyami semen	天仙子	Tianxianzi	henbane seed	2 513 513
71	71	<i>Angelica dahurica</i> root/ <i>Angelica dahurica</i> var. <i>formosana</i> root	angelicae dahuricae radix	白芷	Baizhi	dahurian angelica root	2 503 324
72	72	<i>Angelica pubescens</i> f. <i>biser-rata</i> root	angelicae pubescentis radix	独活	Duhuo	doubleteeth pubescent angelica root	2 490 583
73	73	<i>Morus alba</i> bark	mori cortex	桑白皮	Sangbaipi	mulberry root bark	2 483 217
74	74	<i>Amomum villosum</i> fruit/ <i>Amomum villosum</i> var. <i>xanthioides</i> fruit/ <i>Amomum longgigulare</i> fruit	amomi fructus	砂仁	Sharen	villous amomum fruit	2 478 866
75	75	<i>Carthamus tinctorius</i> flower	carthami flos	红花	Honghua	safflower	2 476 402
76	76	<i>Arctium lappa</i> fruit	arctii fructus	牛蒡子	Niubangzi	great burdock achene	2 463 394
77	77	<i>Asparagus cochinchinensis</i> root tuber	asparagi radix	天冬	Tiandong	cochinchinese asparagus root	2 448 019
78	78	<i>Aucklandia lappa</i> root/ <i>Inula helenium</i> root/ <i>Vladimiria souliei</i> root/ <i>Vladimiria souliei</i> var. <i>cinerea</i> root	aucklandiae radix/inulae radix/vladimiriae radix	木香/土木香/川木香	Muxiang/Tumuxiang/Chuangmuxiang	common aucklandia root/inula root/common vladimiria root	2 446 008
79	79	<i>Notopterygium incisum</i> rhizome and root/ <i>Notopterygium franchetii</i> rhizome and root	notopterygii rhizoma et radix	羌活	Qianghuo	incised notopterygium rhizome or root	2 445 909
80	80	<i>Clematis chinensis</i> root and rhizome/ <i>Clematis manshurica</i> root and rhizome/ <i>Clematis hexapetala</i> root and rhizome	clematidis radix et rhizoma	威灵仙	Weilingxian	Chinese clematis root	2 439 428
81	81	<i>Cassia obtusifolia</i> seed/ <i>Cassia tora</i> seed	cassiae semen	决明子	Juemingzi	cassia seed	2 438 158
82	82	<i>Artemisia argyi</i> leaf	artemisiae argyi folium	艾叶	Aiye	argy mormwoot leaf	2 437 252
83	83	<i>Polygonatum kingianum</i> rhizome/ <i>Polygonatum sibiricum</i> rhizome/ <i>Polygonatum cyrtoneura</i> rhizome	polygonati rhizoma	黄精	Huangjing	solomonseal rhizome	2 437 031
84	84	<i>Eribotrya japonica</i> leaf	eribotryae folium	枇杷叶	Pipaye	loquat leaf	2 431 872

Note: Data from China Customs and Japanese source.

Table 1 (continued)

No.	Rank	Herbal name	Pharmaceutical name	Chinese name	Chinese pinyin	English name	International trade volume (kg)
85	85	<i>Salvia miltiorrhiza</i> root and rhizome	salviae miltiorrhizae radix et rhizoma	丹参	Danshen	danshen root	2 428 743
86	86	<i>Lycium chinense</i> root bark/ <i>Lycium barbarum</i> root bark	lycii cortex	地骨皮	Digupi	Chinese wolfberry root-bark	2 425 474
87	87	<i>Leonurus japonicus</i> herb	leonuri herba	益母草	Yimucao	motherwort herb	2 418 760
88	88	<i>Alpina officinarum</i> rhizome	alpinae officinarum rhizoma	高良姜	Gaoliang-jiang	lesser galangal rhizome	2 415 958
89	89	<i>Cistanche deserticola</i> fleshy stem/ <i>Cistanche tubulosa</i> fleshy stem	cistanches herba	肉苁蓉	Rou-congrong	desertliving cistanche	2 410 311
90	90	<i>Polygonum multiflorum</i> root tuber	polygoni multiflori radix	何首乌	Heshouwu	fleeceflower root	2 410 167
91	91	<i>Areca catechu</i> seed	arecae semen	槟榔	Binglang	areca seed	2 408 522
92	92	<i>Tribulus terrestris</i> fruit	tribuli fructus	蒺藜	Jili	puncturevine caltrop fruit	2 408 444
93	93	<i>Plantago asiatica</i> herb/ <i>Plantago depressa</i> herb	plantaginis herba	车前草	Cheqiancao	plantain herb	2 397 533
94	94	<i>Ligustrum lucidum</i> fruit	ligustri lucidi fructus	女贞子	Nüzhenzi	glossy privet fruit	2 396 274
95	95	<i>Crataegus pinnatifida</i> var. <i>major</i> fruit/ <i>Crataegus pinnatifida</i> fruit	crataegi fructus	山楂	Shanzha	hawthorn fruit	2 391 949
96	96	<i>Aloe barbadensis</i> juice/ <i>Aloe ferox</i> juice	aloe	芦荟	Luhui	aloes	2 390 736
97	97	<i>Curcuma phaeocaulis</i> rhizome/ <i>Curcuma kwangsiensis</i> rhizome/ <i>Curcuma wenyujin</i> rhizome	curcumae rhizoma	莪术	Ezhu	zedoray/zedoary rhizome	2 389 146
98	98	<i>Peucedanum praeruptorum</i> root	peucedani radix	前胡	Qianhu	hogfennel root	2 385 752
99	99	<i>Morinda officinalis</i> root	morindae officinalis radix	巴戟天	Bajitian	morinda root	2 383 111
100	100	<i>Areca catechu</i> pericarp	arecae pericarpium	大腹皮	Dafupi	areca peel	2 380 813

Note: Data from China Customs and Japanese source.

6.2 Single herbal medicines recorded in pharmacopoeias

In total there are 326 kinds of single herbal medicines recorded by at least twice among the *Pharmacopoeia of the People's Republic of China*, the *European Pharmacopoeia*, the *Japanese Pharmacopoeia*, the *Japanese standards for non-Pharmacopoeial crude drugs*, the *Korean Pharmacopoeia*, the *Korean Herbal Pharmacopoeia*, the *Thai Herbal Pharmacopoeia*, *Hong Kong Chinese Materia Medica Standards* and the *United States Pharmacopoeia* (see Table 2). Among the single herbal medicines that are recorded in the *Pharmacopoeia of the People's Republic of China*:

- 81 are also recorded in the *European Pharmacopoeia*;
- 129 are also recorded in the *Japanese Pharmacopoeia*;
- 25 are also recorded in the *Japanese standards for non-Pharmacopoeial crude drugs*;
- 149 are also recorded in the *Korean Pharmacopoeia*;
- 113 are also recorded in the *Korean Herbal Pharmacopoeia*;
- 32 are also recorded in the *Thai Herbal Pharmacopoeia*;
- 273 are also recorded in the *Hong Kong Chinese Materia Medica Standards*;
- 38 are also recorded in the *United States Pharmacopoeia*.

Table 2 — Single herbal medicines recorded in nine pharmacopoeias or standards

No.	Rank	Occurrences	Herbal name	Pharmacoeutical name	Chinese name	Chinese pinyin	English name	CHP ^a	EUP ^b	JPC ^c	Non-JPS ^d	KPE ^e	KHP ^f	THP ^g	HKS ^h	USP ⁱ	Note
1	1	7	<i>Rehmannia glutinosa</i> root	rehmanniae radix	地黄	Dihuang	rehmannia root	x	x	x		x	x		x	x	JP: <i>Rehmannia glutinosa</i> var. <i>purpurea</i> root/KHP: fresh rehmannia root
2	8,5	6	<i>Angelica sinensis</i> root	angelicae sinensis radix	当归	Danggui	Chinese angelica	x	x			x		x		x	KP, USP: <i>Angelica gigas</i> root/THP: <i>Angelica polymorpha</i> var. <i>sinensis</i> root
3	8,5	6	<i>Scutellaria baicalensis</i> root	scutellariae radix	黄芩	Huangqin	baical skullcap root	x	x	x		x			x	x	
4	8,5	6	<i>Citrus reticulata</i> pericarp	citri reticulatae pericarpium	陈皮	Chenpi	dried tangerine peel	x	x	x		x			x	x	JP, KP: <i>Citrus unshiu</i> pericarp
5	8,5	6	<i>Salvia miltiorrhiza</i> root and rhizome	salviae miltiorrhizae radix et rhizoma	丹参	Danshen	danshen root	x	x	x		x			x	x	
6	8,5	6	<i>Schisandra chinensis</i> fruit/ <i>Schisandra sphenantherae</i> fruit	schisandrae chinensis fructus/schisandrae sphenantherae fructus	五味子/南五味子	Wuweizi/ Nanwuweizi	Chinese magnolia-vine fruit/southern magnoliavine fruit	x	x	x		x			x	x	
7	8,5	6	<i>Coptis chinensis</i> rhizome/ <i>Coptis deltoidea</i> rhizome/ <i>Coptis teeta</i> rhizome	coptidis rhizoma	黄连	Huanglian	golden thread	x	x	x		x			x	x	JP, KP: <i>Coptis japonica</i> rhizome

^a CHP stands for the Pharmacopoeia of the People's Republic of China, 2020 edition.

^b EUP stands for the European Pharmacopoeia, 10.7th edition.

^c JP stands for the Japanese Pharmacopoeia, 18th edition.

^d Non-JPS stands for the Japanese standards for non-Pharmacopoeial crude drugs, 2022 edition.

^e KP stands for the Korean Pharmacopoeia, 12th edition.

^f KHP stands for the Korean Herbal Pharmacopoeia, 4th edition.

^g THP stands for the Thai Herbal Pharmacopoeia, 2021 edition and 2021 edition Supplement 2022.

^h HKS stands for the Hong Kong Chinese Materia Medica Standards, Volume 1 to 10.

ⁱ USP stands for the United States Pharmacopoeia, including United States Pharmacopoeia/National Formulary, 2021 edition and United States Pharmacopoeia/Herbal Medicines Compendium.

Table 2 (continued)

No.	Rank	Occurrences	Herbal name	Pharmaceutical name	Chinese name	Chinese pinyin	English name	CHP ^a	EUP ^b	JP ^c	Non-JPS ^d	KP ^e	KHP ^f	THP ^g	HKS ^h	USP ⁱ	Note
8	8,5	6	<i>Astragalus membranaceus</i> var. <i>mongholicus</i> root/ <i>Astragalus membranaceus</i> root	astragali radix	黄芪	Huangqi	milkvetch root	x	x	x		x			x	x	
9	8,5	6	<i>Forsythia suspensa</i> fruit	forsythiae fructus	连翘	Lianqiao	weeping forsythia capsule	x	x	x		x			x	x	KP: <i>Forsythia viridissima</i> fruit
10	8,5	6	<i>Polygonum multiflorum</i> root tuber	polygoni multiflori radix	何首乌	Heshouwu	fleeceflower root	x	x	x		x			x	x	
11	8,5	6	<i>Atractylodes lancea</i> rhizome/ <i>Atractylodes chinensis</i> rhizome	atractylodis rhizoma	苍术	Cangzhu	atractylodes rhizome	x	x	x		x		x	x		JP: rhizome of their interspecific hybrids
12	8,5	6	<i>Piper nigrum</i> fruit	piperis fructus	胡椒	Hujiao	pepper fruit	x	x				x		x	x	
13	8,5	6	<i>Curcuma longa</i> rhizome	curcumae longae rhizoma	姜黄	Jianghuang	turmeric	x		x		x		x	x	x	THP, USP: <i>Curcuma domestica</i> rhizome
14	8,5	6	<i>Cassia angustifolia</i> leaf/ <i>Cassia acutifolia</i> leaf	sennae folium	番泻叶	Fanxieye	senna leaf	x		x		x		x	x	x	THP: <i>Cassia alata</i> leaflet/ <i>Herpetica alata</i> leaflet/ <i>Cassia bracteata</i> leaflet/ <i>EUP: Cassia senna</i> leaflet/ <i>USP-NF: Senna alexandrina</i> leaflet

^a CHP stands for the *Pharmacopoeia of the People's Republic of China*, 2020 edition.

^b EUP stands for the *European Pharmacopoeia*, 10.7th edition.

^c JP stands for the *Japanese Pharmacopoeia*, 18th edition.

^d Non-JPS stands for the *Japanese standards for non-Pharmacopoeial crude drugs*, 2022 edition.

^e KP stands for the *Korean Pharmacopoeia*, 12th edition.

^f KHP stands for the *Korean Herbal Pharmacopoeia*, 4th edition.

^g THP stands for the *Thai Herbal Pharmacopoeia*, 2021 edition and 2021 edition Supplement 2022.

^h HKS stands for the *Hong Kong Chinese Materia Medica Standards*, Volume 1 to 10.

ⁱ USP stands for the *United States Pharmacopoeia*, including *United States Pharmacopoeia/National Formulary*, 2021 edition and *United States Pharmacopoeia/Herbal Medicines Compendium*.