

附件

# 2024 年度草品种名录

(中英文)

## 1. ‘东藜 1 号’ 藜麦

草种名称：藜麦

学名：*Chenopodium quinoa* ‘Dongli 1’

品种类别：育成品种

编号：国 S-BV-CQ-001-2024

申报单位：东北师范大学

选 育 人：周帮伟、任贵兴、秦培友、李志坚、崔宏亮

### 品种特性

一年生草本，主根入土较深，侧根发达呈网状分布。生育期 125~175 天，属于中晚熟品种。种子千粒重约 2.8 g，平均种子产量 1633 kg/hm<sup>2</sup>。在吉林长岭干草产量 7450 kg/hm<sup>2</sup>~8810 kg/hm<sup>2</sup>，在新疆伊犁，干草产量可达 9820 kg/hm<sup>2</sup>。灌浆初期粗蛋白含量 19.1%，粗灰分含量 13.9%，粗脂肪含量 2.0%，中性洗涤纤维含量 44.9%，酸性洗涤纤维含量 25.1%。

### 主要用途

饲用。

### 栽培技术要点

适宜光照充足、无霜期不低于 110 天、沙性土壤或轻度盐碱地区种植。播种前进行旋耕、细耙和作畦，施氮磷钾复合肥 675 kg/hm<sup>2</sup>。播种量 2.25 kg/hm<sup>2</sup>~3.0 kg/hm<sup>2</sup>，覆土厚约 1.5 cm，行距 50 cm，株距 10 cm 为宜。在开花期至灌浆期适宜收割全株，在灌浆初期刈割品质最好、饲草产量最高。

### 适宜种植范围

适宜在东北、华北地区种植。

## 2. ‘鲁菁 5 号’ 田菁

草种名称：田菁

学名：*Sesbania cannabina* ‘Lujing 5’

品种类别：育成品种

编号：国 S-BV-SC-002-2024

申报单位：山东省农业科学院、山东绿肥生态科技有限公司、盐碱地综合利用技术创新中心

选 育 人：张晓冬、隋学艳、曹晓风、邓 娴、宋显伟、唐 丁、李润芳、路凌云、刘世华、赵庆华、孙文彦、王菊英、徐伦聚、韩国梁、王智华、李振华

### 品种特性

根系发达，生育期 150~170 天。平均干草产量 7616 kg/hm<sup>2</sup>，与对照 ‘鲁菁 1 号’ 田菁相比，在河北察北、甘肃甘州试验点分别增产 12.38%、11.40%。种子千粒重 14.33 g，种子产量 917.0 kg/hm<sup>2</sup>~1055.8 kg/hm<sup>2</sup>。初花期全株干物质含量 21.6%，粗蛋白含量 18.4%、粗纤

维含量 24.7%、粗灰分含量 7.6%；干草氮、磷、钾含量分别为 2.95%、0.28%、25 g/kg。可在含盐量 0.5%以下的中度滨海盐碱地正常生长。

### 主要用途

饲用，也可用作绿肥。

### 栽培技术要点

可撒播、穴播、条播。轻中度盐碱地宜条播，行距 40 cm~60 cm。播种量 30 kg/hm<sup>2</sup>~45 kg/hm<sup>2</sup>，留种田播量减半。播种深度 1 cm~2 cm，播后覆土镇压。无前茬地块或中低产田施磷肥 36 kg/hm<sup>2</sup>~48 kg/hm<sup>2</sup>。分别在播种后、初花期进行灌溉。宜在初花期刈割饲草，可刈割 2 次以上，留茬 0.5 m。60%~70%的荚果成熟时可用联合收割机进行籽粒收获作业，籽粒晾晒至含水量 12%以下入库保存。

### 适宜种植范围

适宜在华北、华东、华中、华南等地区种植。

## 3. ‘苏苕 1 号’毛叶苕子

草种名称：毛叶苕子

学名： *Vicia villosa* ‘Sushao 1’

品种类别：育成品种

编号：国 S-BV-VV-003-2024

申报单位：南京农业大学

选 育 人：郭振飞、耿博豪、施海帆、孔维一、赵沛义、邢锦城、付利波、何铁光、储冬生、秦盛华、高松林、曹卫东

### 品种特性

植株高 40 cm~60 cm，主根明显，侧根多，根部着生根瘤，平均生育期 238 天。平均鲜草产量 19289 kg/hm<sup>2</sup>，比对照‘土库曼’毛叶苕子、‘徐苕 3 号’毛叶苕子分别增产 22.4%、23.9%；平均干草产量 2932 kg/hm<sup>2</sup>，比对照‘土库曼’毛叶苕子、‘徐苕 3 号’毛叶苕子分别增产 14.7%、19.1%。种子千粒重约 34 g，平均种子产量 680 kg/hm<sup>2</sup>。在江苏秋播生态修复效率 142~153 天，在内蒙古春播生态修复效率 78 天，比对照‘土库曼’毛叶苕子和‘徐苕 3 号’毛叶苕子分别提前 2 天和 3 天。

### 主要用途

可用作绿肥改良盐碱地，或与其他乡土草种子混播用于草山草坡或退化草地修复。

### 栽培技术要点

南方 9 月下旬至 10 月中旬秋播，南京地区 11 月份也可播种。华北、西北地区 4 月至 5 月春播，也可在 8 月秋播。绿肥田播种量 45 kg/hm<sup>2</sup>~75 kg/hm<sup>2</sup>，留种田播种量减半；条播时播种量 45 kg/hm<sup>2</sup>，撒播时增加播种量。播种时，可将种子与 75 kg/hm<sup>2</sup>的钙镁磷肥拌种后播种，覆土 3 cm~5 cm。追磷肥（过磷酸钙 150 kg/hm<sup>2</sup>）可明显促进植物生长。用作绿肥改良土壤时一般不刈割，也可在初花期刈割，用作青贮或者调制干草；或在种子成熟后刈割收种，剩余植物体部分用作干草饲料。

### 适宜种植范围

适宜在华东、华南、西南、西北等地区种植。

#### 4. ‘内大2号’无芒雀麦

草种名称：无芒雀麦                                学名： *Bromus inermis* ‘Neida 2’  
品种类别：育成品种                                编号：国 S-BV-BI-004-2024  
申报单位：内蒙古大学、内蒙古草业技术创新中心有限公司、内蒙古自治区林业和草原种苗  
                总站、中国林业科学研究院生态保护与修复研究所  
选育人：任卫波、韩慧杰、夏红岩、王召明、刘亚玲、苑峰、刘希强、田丰

#### 品种特性

多年生禾草，具发达的短横走根状茎，根系主要集中在5 cm~10 cm土层。株高110 cm~130 cm。生育期110~130天。种子千粒重3.62 g，种子产量750.17 kg/hm<sup>2</sup>~877.83 kg/hm<sup>2</sup>。平均干草产量7439 kg/hm<sup>2</sup>，比对照‘锡林浩特’无芒雀麦、‘原野’无芒雀麦分别增产20.8%、15.9%。抽穗期粗蛋白含量22.85%，比对照‘原野’无芒雀麦、‘锡林浩特’无芒雀麦分别提高42.7%、38.2%。在内蒙古呼和浩特、锡林浩特和宁夏盐池试验点，2020年生态修复效率分别为90天、110天、80天，优于对照品种‘锡林浩特’无芒雀麦的130天、150天、130天。

#### 主要用途

可用于退化、沙化草地生态修复，天然草原改良、人工草地建设。

#### 栽培技术要点

选择地势平坦、土层深厚、土壤pH值6~8的地块，耕翻15 cm~20 cm。5月初至6月中旬播种为宜。播种量15 kg/hm<sup>2</sup>~20 kg/hm<sup>2</sup>，条播为主，行距20 cm~30 cm，深度2 cm，播后及时镇压。每次刈割后追施尿素200 kg/hm<sup>2</sup>~300 kg/hm<sup>2</sup>。返青、刈割施肥后和入冬前及时灌溉。第一次刈割以抽穗期为宜，留茬高度3 cm~5 cm；第二次刈割在霜降前30~40天完成，留茬高度5 cm~8 cm。

#### 适宜种植范围

适宜在内蒙古、宁夏及其毗邻省区气候条件相近地区种植。

#### 5. ‘龙科1号’羊草

草种名称：羊草  学名： *Leymus chinensis* ‘Longke 1’  
品种类别：育成品种                                编号：国 S-BV-LC-005-2024  
申报单位：黑龙江省农业科学院草业研究所、内蒙古草业技术创新中心有限公司  
选育人：王建丽、申忠宝、苑峰、刘昭明、牟林林、张冬梅、庄煦、韩微波、尤文

#### 品种特性

多年生草本植物，具有发达的地下横走根茎，主要分布于10 cm~20 cm土层。平均生育期175天。生态修复效率374天，较对照‘菁牧3号’羊草、‘东北’羊草分别提早4天、12天；种植当年最大盖度较对照‘菁牧3号’羊草、‘东北’羊草分别增加6.1%、10.4%。种子千粒重约2.4 g。鲜草产量、干草产量、种子产量、地下生物量平均为17632.8 kg/hm<sup>2</sup>、7230.8 kg/hm<sup>2</sup>、379.9 kg/hm<sup>2</sup>、8963.8 kg/hm<sup>2</sup>，较对照‘菁牧3号’羊草分别提高10.0%、11.2%、8.9%、10.3%。

## 主要用途

可用于退化草地修复。

## 栽培技术要点

播种前翻耕深度 25 cm，旋耕深度 15 cm，耩两遍，镇压一遍。东北地区 4 月中下旬播种，不晚于 7 月中旬。采用条播，行距 30 cm，播种量 22.5 kg/hm<sup>2</sup>，播种深度 1.5 cm~2 cm，播后镇压。播种后 1~2 天，喷施 33% 二甲戊灵乳油 2250 ml/hm<sup>2</sup>~3000 ml/hm<sup>2</sup> 进行封闭除草。返青期施用氮磷钾复合肥 150 kg/hm<sup>2</sup>~225 kg/hm<sup>2</sup>、尿素 100 kg/hm<sup>2</sup>~120 kg/hm<sup>2</sup>，施肥后立刻灌返青水。当 70%~80% 的小穗呈褐色时收获种子，种子收获后收割饲草。

## 适宜种植范围

适宜在黑龙江、吉林、辽宁、内蒙古东部及类似生态地区种植。

## 6. ‘川草 4 号’ 藨草

草种名称：藨草

学名： *Phalaris arundinacea* ‘Chuancao 4’

品种类别：育成品种

编号：国 S-BV-PA-006-2024

申报单位：四川省草原科学研究院、内蒙古草业技术创新中心有限公司

选 育 人：闫利军、季晓菲、游明鸿、张昌兵、张建波、雷 雄、李达旭、刘亚玲、常 丹、陈莉敏、吴 琦、余青青

## 品种特性

多年生草本植物。在四川红原生育期 113 天。年均种子产量为 558.9 kg/hm<sup>2</sup>，比对照 ‘川草引 3 号’ 藨草和 ‘阿坝’ 藨草分别增产 52.8%、80.8%。平均鲜草、干草产量分别为 33387.4 kg/hm<sup>2</sup>、10839.5 kg/hm<sup>2</sup>，比对照 ‘川草引 3 号’ 藨草分别增产 11.9%、15.8%。播种当年最大盖度为 35.0%，比对照 ‘川草引 3 号’ 藨草提高 15.5%；生态修复效率 351 天，比对照 ‘川草引 3 号’ 藨草提前 16 天。在青藏高原-30.0℃可安全越冬。

## 主要用途

可用于退化湿地、草地生态修复，人工草地建植。

## 栽培技术要点

播种前翻耕 20 cm~30 cm，精细平整。结合整地施农家肥 18000 kg/hm<sup>2</sup>~22500 kg/hm<sup>2</sup>，或氮磷钾复合肥 225 kg/hm<sup>2</sup>~300 kg/hm<sup>2</sup> 做基肥。4 月下旬至 6 月上旬播种，撒播或条播，条播播种量 10.5 kg/hm<sup>2</sup>~15 kg/hm<sup>2</sup>，行距 40 cm~60 cm，撒播播种量 15 kg/hm<sup>2</sup>~18 kg/hm<sup>2</sup>，播后覆土约 1 cm。翌年分蘖至拔节期追施氮肥 60 kg/hm<sup>2</sup>、磷肥 45 kg/hm<sup>2</sup>、钾肥 30 kg/hm<sup>2</sup>；抽穗至灌浆期刈割，留茬高度 5 cm，刈割收获后追施氮磷钾复合肥 15 kg/hm<sup>2</sup>~25 kg/hm<sup>2</sup>。

## 适宜种植范围

适宜在青藏高原湿润地区及北方有灌溉条件的地区种植。

## 7. ‘中野 2 号’ 野牛草

草种名称：野牛草

学名： *Buchole dactyloides* ‘Zhongye 2’

品种类别：育成品种

编号：国 S-BV-BD-007-2024

申报单位：中国农业大学、中国农业科学院北京畜牧兽医研究所

选 育 人：孙 彦、李 跃、李明娜、胡倩楠、李茂娜、王克华

### 品种特性

多年生草本植物，株高约 26 cm，秋季末叶片通常呈红色。在河北廊坊绿期 192 天，比对照‘中坪 1 号’野牛草增加 10 天；栽植行距 30 cm 条件下，生态修复效率 46 天，比对照‘中坪 1 号’野牛草缩短 17 天，扩展速度比对照‘中坪 1 号’野牛草提高了 11.9%。脱壳种子千粒重约 2 g，种子产量 1500 kg/hm<sup>2</sup>。粘土、沙土、壤土、轻度或中度盐碱地可生长。

### 主要用途

可用于生态修复、普通绿化及道路、边坡绿化。

### 栽培技术要点

种子繁殖或营养繁殖均可，最佳播种期为春末夏初，河北和北京地区一般 5 月底到 8 月初播种，条播，行距为 15 cm~30 cm，播量为 100 kg/hm<sup>2</sup>~150 kg/hm<sup>2</sup>，覆土深度不超过 1.5 cm。种子采用预冷和硝酸钾处理后播种。营养繁殖采用分株繁殖或用匍匐茎埋压建植，株行间距最宽 60 cm，如需迅速覆盖地表，通常株行距为 15 cm~30 cm。生长期中，通过施氮肥可增加其密度和叶色，每次可施尿素 15 g/m<sup>2</sup>~20 g/m<sup>2</sup>。

### 适宜种植范围

适宜在我国降雨量 630 mm 以下的干旱、半干旱及过渡带地区种植。

## 8. ‘中林育 7 号’野牛草

草种名称：野牛草

学名：*Buchole dactyloides* ‘Zhongliny 7’

品种类别：育成品种

编号：国 S-BV-BD-008-2024

申报单位：中国林业科学研究院生态保护与修复研究所、青海省三江集团有限公司

选 育 人：李晓霞、钱永强、邹博坤、马巧玲、李俄仁措、张 然、董 笛、王思宁、刘希强、姜 丽

### 品种特性

多年生草本植物。株高 26.67±2.9 cm，是对照品种‘中林育 2 号’野牛草的 2.9 倍。叶片长度 27.36±3.1 cm，是对照品种‘中林育 1 号’野牛草、‘中林育 2 号’野牛草的 1.4 倍、3.0 倍。绿期 211 天，是对照品种‘中林育 1 号’野牛草、‘中林育 2 号’野牛草的 1.08 倍、1.22 倍。生态修复效率 49 天，比对照品种‘中林育 1 号’野牛草减少 5 天。

### 主要用途

可用于草地、边坡、山脚林缘、公园绿地等低养护立地生态修复和绿地建植。

### 栽培技术要点

种子繁殖和营养繁殖均可。场地翻耕，深度 15 cm，添加底肥和多菌灵，底肥以有机肥为主，用量 750 kg/hm<sup>2</sup>。种子繁殖采用穴播，播种深度 1.0 cm~1.5 cm，播后用小型压路机进行碾压。营养繁殖将草皮撕成草皮块进行栽种，用小铲挖 10 cm 深小坑，将草皮块放入后将两侧土壤回填，踩实土壤，两周后用小型压路机进行碾压，平整土地播种和栽植后均需立

即浇水。制种田不进行修剪，边坡等困难立地生态修复每年可进行 1~2 次修剪，留茬高度 3 cm~6 cm。

### 适宜种植范围

适宜在华北地区种植。

## 9. ‘中林育 8 号’野牛草

草种名称：野牛草

学名： *Buchole dactyloides* ‘Zhonglinyu 8’

品种类别：育成品种

编号：国 S-BV-BD-009-2024

申报单位：中国林业科学研究院生态保护与修复研究所、内蒙古草业技术创新中心有限公司

选 育 人：李晓霞、钱永强、邹博坤、王召明、刘亚玲、张 然、董 笛、王思宁、刘希强、苑 峰、姜 丽

### 品种特性

多年生草本植物。株高  $27.02 \pm 3.6$  cm，是对照‘中林育 2 号’野牛草的 2.7 倍；叶片长度  $25.5 \pm 3.9$  cm，分别是对照‘中林育 1 号’野牛草、‘中林育 2 号’野牛草的 1.2 倍、2.7 倍；绿期平均 200 天，与对照‘中林育 1 号’野牛草接近，是对照‘中林育 2 号’野牛草的 1.11 倍。生态修复效率 46 天，比对照品种‘中林育 1 号’野牛草、‘中林育 2 号’野牛草分别减少 7 天、3 天。

### 主要用途

可用于沙化、盐渍化土壤生态修复。

### 栽培技术要点

种子繁殖和营养繁殖均可。场地翻耕，深度 15 cm，添加底肥和多菌灵，底肥以有机肥为主，用量  $750 \text{ kg/hm}^2$ 。种子繁殖采用穴播，播种深度 1.0 cm~1.5 cm，播后用小型压路机进行碾压。营养繁殖将草皮撕成草皮块进行栽种，用小铲挖 10 cm 深小坑，将草皮块放入后将两侧土壤回填，踩实土壤，两周后用小型压路机进行碾压，平整土地播种和栽植后均需立即浇水。制种田不进行修剪，边坡等困难立地生态修复每年可进行 1~2 次修剪，留茬高度 3 cm~6 cm。

### 适宜种植范围

适宜在华北、西北等干旱半干旱地区种植。

## 10. ‘鄂观 8 号’白三叶

草种名称：白三叶

学名： *Trifolium repens* ‘Eguan 8’

品种类别：育成品种

编号：国 S-BV-TR-010-2024

申报单位：湖北省农业科学院畜牧兽医研究所、中国科学院武汉植物园

选 育 人：张鹤山、刘 洋、陈 良、田 宏、熊军波、谢 燕、陆姣云、吴新江

### 品种特性

多年生草本植物。主茎较短，开花期草层高 30 cm~38 cm。三出掌状复叶，小叶倒卵形或椭圆形，叶面具“V”形白色斑纹。小花梗红色，长约 0.5 cm，总花梗长度 30 cm~35 cm。

头状花序，直径 2 cm，含小花 80 朵~100 朵；花冠蝶形，红色，色素沉积明显，花萼筒状。种茎产量约 12000 kg/hm<sup>2</sup>。在湖北武汉试验点，花序观赏期约 200 天，比对照‘鄂牧 1 号’白三叶长 8 天，比对照‘瑞文得’白三叶长 10 天。

### 主要用途

可用于园林绿化、植物造景等，在庭院、小区和公园作为色带、花带及栽植背景应用。

### 栽培技术要点

采用营养体繁殖，穴栽，穴距 15 cm~20 cm，将具 2~3 个芽的茎段均匀地排列，每穴 1 株，覆土，保证有 1 个芽露出地面，及时浇定根水。北方春季 3 月至 4 月份栽植，南方秋季 9 月份栽植。长江流域根据地面干旱程度适时灌水，秋季少雨时注意浇水，以利返青。北方地区视天气情况适时灌溉，每次要浇透根层土壤。保证种植区域阳光充足，以保证花瓣正常显色。

### 适宜种植范围

适宜在温带气候区和华北、华中及西南气候冷凉地区种植。

## 11. ‘鲁坪 1 号’杂交狗牙根

草种名称：杂交狗牙根 学名：*Cynodon transvaalensis* × *C. dactylon* ‘Luping 1’

品种类别：育成品种 编号：国 S-BV-CT-011-2024

申报单位：鲁东大学、内蒙古草业技术创新中心有限公司、青岛农业大学、北京快乐小草运动草科技有限公司

选育人：傅金民、王伟、李晓宁、邵安、王召明、刘亚玲、苑峰、贾辰雁

### 品种特性

多年生草本植物，三倍体。地下茎蔓延长，节上常生出不定根，植株高度大约为 30 cm。在山东烟台试验点，4 月中下旬开始返青，11 月上中旬进入枯黄期，全年绿坪期 210~240 天。坪用质量综合评价得分高于对照‘苏植 2 号’狗牙根和‘邯郸’狗牙根；在山东烟台试验点，平均绿坪期为 226 天，比对照‘保定’狗牙根增加 15 天。

### 主要用途

可用于足球场、高尔夫球场的球道和发球台、公共绿地、保土草坪建设。

### 栽培技术要点

5 月至 10 月进行种植。在滨海盐碱地，推荐使用铺草皮法进行建植，将草皮按 30 cm × 30 cm 切割，或使用铲草机进行条状切割。草块厚度需保持一致，带有 2 cm~3 cm 厚的土壤。栽植时，确保草皮上部的土壤与地面齐平。栽植完成后，及时进行浇水，并通过人工或机械碾压确保草皮与土壤紧密接触。建植前，每亩施用复合肥 30 kg。建植后，每月施用尿素 105 kg/hm<sup>2</sup>~120 kg/hm<sup>2</sup> 促进生长。10 月至 11 月，进行施肥可以促进草坪在第 2 年更好地返青。

### 适宜种植范围

适宜在黄河以南的华北、华东、华中、华南地区种植。

## 12. ‘兰坪1号’多年生黑麦草

草种名称：多年生黑麦草

学名：*Lolium perenne* ‘Lanping 1’

品种类别：育成品种

编号：国 S-BV-LP-012-2024

申报单位：兰州大学

选育人：南志标、李春杰、陈振江、田沛、魏学凯

### 品种特性

多年生丛生草本，带内生真菌品种。4年平均叶锈病发病率3.5%，显著低于对照‘顶峰’多年生黑麦草、‘绅士’多年生黑麦草、‘维纳斯’多年生黑麦草的21.0%、65.0%和89.5%。在兰州地区绿期308天，比对照‘顶峰’多年生黑麦草、‘绅士’多年生黑麦草、‘维纳斯’多年生黑麦草长3~7天。种子在4℃储藏条件下可保持内生真菌活力。在陕西榆林、新疆乌鲁木齐、内蒙古沙尔沁、甘肃甘州区域试验点，坪用质量综合评价得分均高于对照品种‘顶峰’多年生黑麦草和‘绅士’多年生黑麦草。

### 主要用途

可用于运动场草坪建植、绿地草坪建植、护坡绿化等。

### 栽培技术要点

草坪建植最适播期为4月至9月，采用种子播种的方式建植，播种量250 kg/hm<sup>2</sup>，播种深度1 cm。对土质和土壤类型没有过高的要求，地块平坦，施适量基肥（二胺或农家肥）。播种后铺设草坪专用无纺布。出苗前每天早上或晚上喷灌一次，成坪后根据需要进行喷灌。及时修剪，刈割留茬高度3 cm。

### 适宜种植范围

适宜黄土高原、华北平原、西北内陆干旱半干旱地区种植。

## 13. ‘巴尔虎’草木樨状黄耆

草种名称：草木樨状黄耆

学名：*Astragalus melilotoides* ‘Baerhu’

品种类别：野生驯化品种

编号：国 S-WDV-AM-013-2024

申报单位：内蒙古草业技术创新中心有限公司、内蒙古蒙草草业科技有限公司

选育人：王召明、郭金龙、刘英俊、伏兵哲、索明春、王智勇、刘志华、苑峰、康永霞、刘俊

### 品种特性

多年生草本，根系发达，深约70 cm。年平均干草产量3400 kg/hm<sup>2</sup>，比对照野生草木樨状黄耆、‘鄂尔多斯’草木樨状黄耆分别增产9%、21%。种子千粒重1.3 g。年平均种子产量700 kg/hm<sup>2</sup>，比对照野生草木樨状黄耆、‘鄂尔多斯’草木樨状黄耆分别增产13%、44%。在内蒙古海拉尔、呼和浩特、宁夏盐池试验点生态修复效率分别为402天、390天、387天，较对照野生草木樨状黄耆分别提前13天、11天、6天，较对照‘鄂尔多斯’草木樨状黄耆分别提前18天、2天、3天。

### 主要用途

可用于天然草地补播、退化草场改良和人工草地建设，也可用于生态治理和水土保持。



## 栽培技术要点

翻地深度 20 cm 以上，翻后及时耙地和压地，施基肥。春播、夏播、秋播均可，以 6 月至 7 月雨季播种最好，在呼伦贝尔地区秋播不得迟于 7 月末。种子打磨，条播，行距 40 cm~50 cm，播种量 7.5 kg/hm<sup>2</sup>~11.5 kg/hm<sup>2</sup>，播深 1 cm~2 cm，播后及时镇压。第 1 年不建议刈割利用，第 2 年后，每年可刈割 1~2 次，每次刈割后应有 30~40 天的再生期，确保安全越冬。

## 适宜种植范围

适宜在东北、内蒙古中东部、宁夏、陕西、甘肃等年降水量 350 mm 以上地区种植。

## 14. ‘珀修斯’羊茅黑麦草

草种名称：羊茅黑麦草                      学名：*Lolium mutiflorum* × *Festuca arundinacea* ‘Perseus’  
品种类别：引进品种                      编号：国 S-IV-LM-014-2024  
申报单位：四川农业大学、四川省林业和草原发展研究中心（四川省林业和草原信息中心）  
                    重庆市畜牧科学院  
选 育 人：黄琳凯、聂 刚、张 健、冯光燕、王小珊、黄德均、李鸿祥

## 品种特性

多年生、疏丛型四倍体禾草，株高 90 cm~110 cm。年平均鲜草产量 58452.73 kg/hm<sup>2</sup>，比对照‘劳发’羊茅黑麦草、‘拜伦’羊茅黑麦草分别增产 11.89%、13.87%；平均干草产量 7466.85 kg/hm<sup>2</sup>，比对照‘劳发’羊茅黑麦草、‘拜伦’羊茅黑麦草分别增产 11.28%、12.84%。抽穗期粗蛋白含量 22.07%，粗脂肪含量 2.52 g/kg，中性洗涤纤维含量 51.3%，酸性洗涤纤维含量 31.8%。

## 主要用途

饲用。

## 栽培技术要点

适合多种土壤，播前精细整地，贫瘠土壤施用底肥。春播或秋播，条播行距 20 cm~30 cm，播种深度 1 cm~2 cm，播种量为 15 kg/hm<sup>2</sup>~22 kg/hm<sup>2</sup>。苗期结合中耕松土及时除尽杂草；每 2~3 次刈割或放牧后可施尿素 50 kg/hm<sup>2</sup>~100 kg/hm<sup>2</sup>；分蘖、拔节、孕穗期或冬春干旱时，要适当补浇水。适宜刈割青饲或晒制干草，孕穗至抽穗期刈割留茬高度约 5cm，也可放牧利用。

## 适宜种植范围

适宜在长江流域中上游亚热带地区海拔 1000 m~2500 m，降水 800 mm~1500 mm，年平均气温 10℃~25℃的温凉湿润地区种植。

# National List of Grass Varieties in 2024

## 1. *Chenopodium quinoa* ‘Dongli 1’

**Species:** *Chenopodium quinoa* Willd.

**Scientific name:** *Chenopodium quinoa* Willd. ‘Dongli 1’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-CQ-001-2024

**Applicant:** Northeast Normal University

**Breeders:** Zhou Bangwei, Ren Guixing, Qin Peiyong, Li Zhijian, Cui Hongliang

### Characteristics:

This variety is an annual herb with a deep main root and well-developed lateral roots arranged in a reticular (network-like) pattern. The growth period ranges from 125 to 175 days, classifying it as a medium-to-late maturing variety. The thousand-grain weight is approximately 2.8 g, and the average seed yield is 1633 kg/hm<sup>2</sup>. In Changling County, Jilin Province, the hay yield ranges from 7450 kg/hm<sup>2</sup> to 8810 kg/hm<sup>2</sup>, while Ili Prefecture, Xinjiang Autonomous Region, it can reach up to 9820 kg/hm<sup>2</sup>. At the initial stage of filling, the crude protein content is 19.1%, crude ash content is 13.9%, crude fat content is 2.0%, neutral detergent fiber content is 44.9%, and acid detergent fiber content is 25.1%.

### Main use:

For animal feed

### Key cultivation techniques:

This cultivar suitable for cultivation in areas with sufficient sunlight, a frost-free period of no less than 110 days, and sandy soil or mildly saline-alkali soil. Prior to sowing, rotary tillage, fine harrowing and ridge making should be carried out, and 675 kg/hm<sup>2</sup> of nitrogen-phosphorus-potassium compound fertilizer should be applied. The seeding rate is 2.25 kg/hm<sup>2</sup> to 3.0 kg/hm<sup>2</sup>, with a soil cover of about 1.5 cm, row spacing of 50 cm, and plant spacing of 10 cm. It is suitable to harvest the whole plant from the flowering to the grain filling stage, with the highest quality and forage yield occurring at the early grain filling stage.

### Suitable areas for planting:

Suitable for planting in Northeast and North China regions.

## 2. *Sesbania cannabina* ‘Lujing 5’

**Species:** *Sesbania cannabina*

**Scientific name:** *Sesbania cannabina* ‘Lujing 5’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-SC-002-2024

**Applicant:** Shandong Academy of Agricultural Sciences, Shandong Green Manure Ecological Technology Co., Ltd., National Center of Technology Innovation for Comprehensive Utilization of

Salt-alkali Land.

**Breeders:** Zhang Xiaodong, Sui Xueyan, Cao Xiaofeng, Deng Xian, Song Xianwei, Tang Ding, Li Runfang, Lu Lingyun, Liu Shihua, Zhao Qinghua, Sun Wenyan, Wang Juying, Xu Lunju, Han Guoliang, Wang Zhihua, Li Zhenhua.

**Characteristics:**

‘Lujing 5’ has a well-developed root system and a growth period of 150-170 days. The average hay yield is 7616 kg/hm<sup>2</sup>, with yield increases of 12.38% and 11.40% compared to the control *Sesbania cannabina* ‘Lujing 1’ in Chabei, Hebei Province and Ganzhou, Gansu Province respectively. The thousand-seed weight is 14.33 g, and the seed yield ranges from 917.0 kg/hm<sup>2</sup> to 1055.8 kg/hm<sup>2</sup>. At the initial flowering stage, the whole plant contains 21.6% dry matter, 18.4% crude protein, 24.7% crude fiber, and 7.6% crude ash. Additionally, the hay contains nitrogen, phosphorus and potassium at levels of 2.95%, 0.28% and 25 g/kg, respectively. This variety can grow normally in moderate coastal saline-alkali soils with salt content below 0.5%.

**Main use:**

It can be used for feeding and as green manure.

**Cultural techniques:**

It can be sown by broadcasting, hole sowing or row sowing. For mild to moderate saline-alkali land, row sowing is recommended, with a row spacing of 40 cm~60 cm. The sowing rate is 30 kg/hm<sup>2</sup> to 45 kg/hm<sup>2</sup>, and for seed production fields, the sowing rate should be halved. The sowing depth is 1 cm-2 cm, and the soil should be covered and pressed after sowing. In fields without previous crops or those with medium to low yield, apply 36 kg/hm<sup>2</sup>-48 kg/hm<sup>2</sup> of phosphorus fertilizer. Irrigation is required after sowing and during the early flowering period. It is advisable to mow the forage grass during the early flowering period, and it can be mowed more than twice, leaving 0.5 m of stubble. When 60%-70% of the pods are mature, the grains can be harvested by a combine harvester. Dry the grains until their moisture content is below 12% before storing in the warehouse.

**Suitable areas for planting:**

It is suitable for planting in North China, East China, Central China, South China and other regions.

**3. *Vicia villosa* ‘Sushao 1’**

**Species:** *Vicia villosa*

**Scientific name:** *Vicia villosa* ‘Sushao 1’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-VV-003-2024

**Applicant:** Nanjing Agricultural University

**Breeders:** Guo Zhengfei, Geng Bohao, Shi Haifan, Kong Weiyi, Zhao Peiyi, Xing Jincheng, Fu Libo, He Tiegung, Chu Dongsheng, Qin Shenghua, Gao Songlin, Cao Weidong.

**Characteristics:**

The plant height is 40 cm to 60 cm, with obvious taproot, many lateral roots and nodules on the roots. The average growth period is 238 days. The average fresh grass yield is 19289 kg/hm<sup>2</sup>, which is 22.4% and 23.9% higher than the control of ‘Turkmen’ *Vicia villosa* and ‘Xu Tiao No. 3’ *Vicia villosa* respectively. The average hay yield is 2932 kg/hm<sup>2</sup>, which is 14.7% and 19.1% higher than the control of ‘Turkmen’ *Vicia villosa* and ‘Xu Tiao No. 3’ *Vicia villosa*, respectively. The seed thousand-grain weight is about 34 g, and the average seed yield is 680 kg/hm<sup>2</sup>. The ecological restoration efficiency of autumn sowing in Jiangsu province is 142 days to 153 days, and the ecological restoration efficiency of spring sowing in Inner Mongolia is 78 days, which is 2 days and 3 days earlier than the control of ‘Turkmen’ *Vicia villosa* and ‘Xu Tiao No. 3’ *Vicia villosa*, respectively.

**Main use:**

It can be used as green manure to improve saline-alkali land, or mixed with other endemic grass seeds for restoration of grass hills, slopes or degraded grasslands.

**Cultural techniques:**

In Southern China, autumn sowing is carried out from late September to mid-October, and in Nanjing, autumn sowing can also be carried out in November. In North China and Northwest China, spring sowing is carried out from April to May, and autumn sowing can also be carried out in August. The sowing rate for green manure fields is 45 kg/hm<sup>2</sup> to 75 kg/hm<sup>2</sup>, and the sowing rate for seed fields is halved. The sowing rate for row sowing is 45 kg/hm<sup>2</sup>, and the sowing rate is increased for broadcast sowing. When sowing, the seeds can be mixed with 75 kg/hm<sup>2</sup> of calcium magnesium phosphate fertilizer and then sown, and covered with 3 cm-5 cm of soil. Topdressing phosphate fertilizer (superphosphate 150 kg/hm<sup>2</sup>) can significantly promote plant growth. When used as green manure to improve soil, it is generally not mowed, but it can also be mowed in the early flowering period and used as silage or hay; or it can be mowed and harvested after the seeds mature, and the remaining plant body can be used as hay feed.

**Suitable areas for planting:**

It is suitable for planting in East China, South China, Southwest China, Northwest China and other regions.

**4. *Bromus inermis* ‘Neida 2’**

**Species:** *Bromus inermis*

**Scientific name:** *Bromus inermis* ‘Neida 2’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-BI-004-2024

**Applicant:** Inner Mongolia University, Inner Mongolia Grassland Technology Innovation Center Co., Ltd., Inner Mongolia Autonomous Region Forestry and Grassland Seedling Station, Institute of Ecological Protection and Restoration, Chinese Academy of Forestry.

**Breeders:** Ren Weibo, Han Huijie, Xia Hongyan, Wang Zhaoming, Liu Yaling, Yuan Feng, Liu Xiqiang, Tian Feng.

**Characteristics:**

Perennial grass with well-developed short horizontal rhizomes, and the root system is mainly concentrated in the 5 cm-10 cm soil layer. Plant height is 110 cm to 130 cm. Growth period is 110 days to 130 days. Seed 1000-grain weight is 3.62 g, and seed yield is 750.17 kg/hm<sup>2</sup> to 877.83 kg/hm<sup>2</sup>. The average hay yield is 7439 kg/hm<sup>2</sup>, which is 20.8% and 15.9% higher than the control *Bromus inermis* 'Xilinhaote' and 'Yuanye', respectively. The crude protein content at the heading stage is 22.85%, which is 42.7% and 38.2% higher than the control 'Xilinhaote' *Bromus inermis* and 'Yuanye' *Bromus inermis*, respectively. At the test sites in Hohhot, Xilinhot, Inner Mongolia and Yanchi, Ningxia, the ecological restoration efficiency in 2020 was 90 days, 110 days and 80 days respectively, which were better than the control variety 'Xilinhaote' *Bromus inermis* of 130 days, 150 days and 130 days.

**Main use:**

It can be used for ecological restoration of degraded and desertified grasslands, improvement of natural grasslands, and construction of artificial grasslands.

**Cultural techniques:**

Choose a flat plot with deep soil and soil pH of 6-8. Plough 15 cm-20 cm. It is best to sow from early May to mid-June. Seeding rate is 15 kg/hm<sup>2</sup> to 20 kg/hm<sup>2</sup>, mainly row sowing, row spacing is 20 cm-30 cm, depth is 2 cm, and timely suppression after sowing. Apply urea 200 kg/hm<sup>2</sup> to 300 kg/hm<sup>2</sup> after each mowing. Irrigate in time after greening, mowing and fertilizing, and before winter. The first mowing is best done at the heading stage, with a stubble height of 3 cm-5 cm. The second mowing is completed 30 to 40 days before the frost, with a stubble height of 5 cm-8 cm.

**Suitable areas for planting:**

It is suitable for planting in Inner Mongolia, Ningxia and their neighboring provinces and regions with similar climatic conditions.

## **5. *Leymus chinensis* 'Longke 1'**

**Species:** *Gramineae Leymus*

**Scientific name:** *Leymus chinensis* 'Longke 1'

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-LC-005-2024

**Applicant:** Institute of forage and grassland sciences of Heilongjiang Academy of Agricultural Sciences, Inner Mongolia Grass Industry Technology Innovation Center Co., Ltd.

**Breeders:** Wang Jianli, Shen Zhongbao, Yuan Feng, Liu Zhaoming, Mu Linlin, Zhang Dongmei, Zhuang Xu, Han Weibo, You Jia.

**Characteristics:**

It is a perennial herb which has developed underground rhizomes mainly distributed in the soil layer of 10 cm to 20 cm. The ecological restoration efficiency reached within 374 days, which is 4 days and 12 days earlier than the control 'Jingmu No.3' *leymus chinensis* and 'Northeast' *leymus chinensis*, respectively; The maximum coverage in the year of sowing increased by 6.1% and

10.4% compared to the control 'Jingmu No.3' *leymus chinensis* and 'Northeast' *leymus chinensis*, respectively. Its average growth period is 175 days. The thousand-seed weight is approximately 2.4 grams. The average yields of fresh grass, dry grass, seeds, and underground biomass were 17,632.8 kg/hm<sup>2</sup>, 7,230.8 kg/hm<sup>2</sup>, 379.9 kg/hm<sup>2</sup>, and 8,963.8 kg/hm<sup>2</sup>, respectively, which were 10.0%, 11.2%, 8.9%, and 10.3% higher than those of the control 'Jingmu No.3' *Leymus chinensis*.

**Main use:**

It can be used for the restoration of degraded grassland.

**Cultural techniques:**

Before sowing, plough the soil to a depth of 25 cm, rotary tillage to a depth of 15 cm, rake twice, and press once. Sowing should be carried out in mid-to-late April in Northeast China, no later than mid-July. Adopt row sowing with a row spacing of 30 cm, a sowing rate of 22.5 kg/hm<sup>2</sup>, and a sowing depth of 1.5 cm to 2 cm, followed by pressing after sowing. One to two days after sowing, apply 2,250 ml/hm<sup>2</sup> to 3,000 ml/hm<sup>2</sup> of 33% pendimethalin emulsifiable concentrate for weed control. During the green-up period, apply 150 kg/hm<sup>2</sup> to 225 kg/hm<sup>2</sup> of nitrogen, phosphorus and potassium compound fertilizer and 100 kg/hm<sup>2</sup> to 120 kg/hm<sup>2</sup> of urea, followed immediately by irrigation for green-up. Harvest the seeds when 70% to 80% of the spikelets are brown, and then harvest the forage grass after seed harvest.

**Suitable areas for planting:**

It is suitable for cultivation in Heilongjiang, Jilin, Liaoning, eastern Inner Mongolia, and similar ecological regions.

**6. *Phalaris arundinacea* 'Chuancao 4'**

**Species:** *Phalaris arundinacea*

**Scientific name:** *Phalaris arundinacea* 'Chuancao 4'

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-PA-006-2024

**Applicant:** Sichuan Academy of Grassland Sciences,

**Breeders:** Yan Lijun, Ji Xiaofei, You Minghong, Zhang Changbing, Zhang Jianao, Lei Xiong, Li Daxu, Liu Yaling, Chang Dan, Chen Limin, Wu Qi, Yu qingqing.

**Characteristics:**

It is the perennial herb. The growth period in Hongyuan, Sichuan province is 113 days. The average annual seed yield is 558.9 kg/hm<sup>2</sup>, which is 52.8% and 80.8% higher than the control 'Chuancaoyin No. 3' *Phalaris arundinacea* and 'Aba' *Phalaris arundinacea*, respectively. The average fresh grass and hay yields are 33387.4 kg/hm<sup>2</sup> and 10839.5 kg/hm<sup>2</sup>, respectively, which are 11.9% and 15.8% higher than the control 'Chuancaoyin No. 3' *Phalaris arundinacea*, respectively. The maximum coverage in the year of sowing is 35.0%, which is 15.5% higher than the control 'Chuancaoyin No. 3' *Phalaris arundinacea*. The ecological restoration efficiency is 351 days, which is 16 days earlier than the control 'Chuancaoyin No. 3' *Phalaris arundinacea*. It can safely overwinter at -30.0°C on the Qinghai-Tibet Plateau.

**Main use:**

It can be used for ecological restoration of degraded wetlands and grasslands, and artificial grassland construction.

**Cultural techniques:**

Before sowing, plough the soil to 20 cm-30 cm and level it finely. Combined with land preparation, apply 18000 kg/hm<sup>2</sup> to 22500 kg/hm<sup>2</sup> of farmyard manure or 225 kg/hm<sup>2</sup> to 300 kg/hm<sup>2</sup> of nitrogen, phosphorus and potassium compound fertilizer as base fertilizer. Sowing is carried out from late April to early June, broadcasting or drilling, with a sowing rate of 10.5 kg/hm<sup>2</sup> to 15 kg/hm<sup>2</sup> for drilling and 15 kg/hm<sup>2</sup> to 18 kg/hm<sup>2</sup> for broadcasting. The row spacing of drilling is 40 cm to 60 cm, and the soil is covered about 1 cm after sowing. The following year, apply 60 kg/hm<sup>2</sup> of nitrogen fertilizer, 45 kg/hm<sup>2</sup> of phosphorus fertilizer, and 30 kg/hm<sup>2</sup> of potassium fertilizer from tillering to jointing stage. Mowing from heading to filling stage, leaving stubble height of 5 cm, and apply 15 kg/hm<sup>2</sup> to 25 kg/hm<sup>2</sup> of nitrogen, phosphorus and potassium compound fertilizer after mowing and harvesting.

**Suitable areas for planting:**

It is suitable for planting in the humid areas of the Qinghai-Tibet Plateau and areas with irrigation conditions in the North China.

**7. *Buchole dactyloides* ‘Zhongye 2’**

**Species:** *Buchole dactyloides*

**Scientific name:** *Buchole dactyloides* ‘Zhongye 2’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-BD-007-2024

**Applicant:** China Agricultural University, Institute of Animal Sciences of CAAS

**Breeders:** Sun Yan, Li Yue, Li Mingna, Hu Qiannan, Li Maona, Wang Kehua.

**Characteristics:**

‘Zhongye 2’ is a perennial grass of Gramineae with the plant height of about 26 cm, and leaves that usually turn to a purplish-red hue in late autumn. In Langfang, Hebei province, the green period is 192 days, 10 days longer than the control ‘Zhongping 1’ *Buchole dactyloides*. Under the condition of 30 cm planting row spacing, the ecological restoration efficiency is 46 days, which is 17 days shorter than the control does. The expansion rate is 11.9% higher than that of the control. The thousand-grain weight of hulled seeds is about 2 g, and the bur yield is 1500 kg/hm<sup>2</sup>.

‘Zhongye 2’ can grow in clay, sandy soil or loam soil, and can tolerate light or moderate saline-alkali land.

**Main use:**

It can be used for ecological restoration, general greening, and greening of roads and slopes.

**Cultural techniques:**

Either seeds or vegetative propagation is acceptable for ‘Zhongye 2’. The best planting time is in late spring and early summer. In Hebei and Beijing province, it is generally sown from the end of

May to the early August. It should be sowing in drills no more than 1.5 cm deep and 15-30 cm apart. The seeding rate is 100-150 kg/hm<sup>2</sup>. The seeds are sown after precooling and potassium nitrate treatment. Vegetative propagation is carried out by planting ramets or planted by burying and pressing stolons. The maximum spacing can be as wide as 60 cm. If it is necessary to cover the ground quickly, the spacing between rows is usually 15 cm to 30 cm. During the growth period, nitrogen fertilizer can be applied to increase its density and leaf color. Urea can be applied at 15 g/m<sup>2</sup> to 20 g/m<sup>2</sup> each time.

**Suitable areas for planting:**

‘Zhongye 2’ is suitable for planting in arid, semi-arid and transitional areas with rainfall below 630 mm in China.

**8. *Buchole dactyloides* ‘Zhonglinyu 7’**

**Species:** *Buchole dactyloides*

**Scientific name:** *Buchole dactyloides* ‘Zhonglinyu 7’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-BD-008-2024

**Applicant:** Institute of Ecological Conservation and Restoration, Chinese Academy of Forestry. Qinghai Sanjiang Group Co., Ltd.

**Breeders:** Li Xiaoxia, Qian Yongqiang, Zou Bokun, Ma Qiaolin, Li Erencuo, Zhang Ran, Dong Di, Wang Sining, Liu Xiqiang, Jiang Li.

**Characteristics:**

It is a perennial herb. The plant height is 26.67±2.9 cm, which is 2.9 times that of the control variety ‘Zhonglinyu 2’ *Buchole dactyloides*. The leaf length is 27.36±3.1 cm, which is 1.4 times and 3.0 times that of the control varieties ‘Zhonglinyu 1’ *Buchole dactyloides* and ‘Zhonglinyu 2’ *Buchole dactyloides*. The green period is 211 days, which is 1.08 times and 1.22 times that of the control varieties ‘Zhonglinyu 1’ *Buchole dactyloides* and ‘Zhonglinyu 2’ *Buchole dactyloides*. The ecological restoration efficiency is 49 days, which is 5 days less than the control variety ‘Zhonglinyu 1’ *Buchole dactyloides*.

**Main use:**

It can be used for ecological restoration and green space construction in low-maintenance sites such as grasslands, slopes, forest edges at the foot of mountains, and park green spaces.

**Cultural techniques:**

It can be propagated by seeds or by nutrition. The site is plowed to a depth of 15 cm, and base fertilizer and carbendazim are added. The base fertilizer is mainly organic fertilizer, and the amount is 750 kg/hm<sup>2</sup>. Seed propagation adopts hole sowing, and the sowing depth is 1.0 cm to 1.5 cm. After sowing, it is rolled with a small roller. For nutrition propagation, the turf is torn into turf blocks for planting. A 10 cm deep pit is dug with a small shovel. After the turf blocks are placed, the soil on both sides is backfilled and the soil is compacted. After two weeks, it is rolled with a small roller. The land needs to be leveled and watered immediately after sowing and planting. The seed field is not pruned. Ecological restoration of difficult sites such as slopes can be



carried out 1-2 times a year, and the stubble height is 3 cm to 6 cm.

**Suitable areas for planting:**

It is suitable for planting in North China.

**9. *Buchole dactyloides* ‘Zhonglinyu 8’**

**Species:** *Buchole dactyloides*

**Scientific name:** *Buchole dactyloides* ‘Zhonglinyu 8’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-BD-009-2024

**Applicant:** Institute of Ecological Conservation and Restoration, Chinese Academy of Forestry, Inner Mongolia Grassland Technology Innovation Center Co., Ltd.

**Breeders:** Li Xiaoxia, Qian Yongqiang, Zou Bokun, Wang Zhaoming, Liu Yalin, Zhang Ran, Dong Di, Wang Sining, Liu Xiqiang, Yuan Feng, Jiang Li.

**Characteristics:**

It is a perennial herb. The plant height is  $27.02\pm 3.6$  cm, which is 2.7 times that of the control *Buchole dactyloides* ‘Zhonglinyu 2’. The leaf length is  $25.5\pm 3.9$  cm, which is 1.2 times and 2.7 times that of the control *Buchole dactyloides* ‘Zhonglinyu 1’ and ‘Zhonglinyu 2’, respectively. The average green period is 200 days, which is close to the control *Buchole dactyloides* ‘Zhonglinyu 1’ and 1.11 times that of the control *Buchole dactyloides* ‘Zhonglinyu 2’. The ecological restoration efficiency is 46 days, which is 7 days and 3 days less than the control varieties ‘Zhonglinyu 1’ and ‘Zhonglinyu 2’ *Buchole dactyloides*, respectively.

**Main use:**

It can be used for ecological restoration of desertified land and salinized soil.

**Cultural techniques:**

It can be propagated by seeds or by nutrition. The site is plowed to a depth of 15 cm, and base fertilizer and carbendazim are added. The base fertilizer is mainly organic fertilizer, and the amount is 750 kg/hm<sup>2</sup>. Seed propagation adopts hole sowing, and the sowing depth is 1.0 cm to 1.5 cm. After sowing, it is rolled with a small roller. For nutrition propagation, the turf is torn into turf blocks for planting. A 10 cm deep pit is dug with a small shovel. After the turf blocks are placed, the soil on both sides is backfilled and the soil is compacted. After two weeks, it is rolled with a small roller. The land needs to be leveled and watered immediately after sowing and planting. The seed field is not pruned. Ecological restoration of difficult sites such as slopes can be carried out 1-2 times a year, and the stubble height is 3 cm to 6 cm.

**Suitable areas for planting:**

It is suitable for planting in arid and semi-arid areas such as North China and Northwest China.

**10. *Trifolium repens* ‘Eguan 8’**

**Species:** *Trifolium repens*

**Scientific name:** *Trifolium repens* ‘Eguan 8’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-TR-010-2024

**Applicant:** Institute of Animal Sciences and Veterinary Medicine, Hubei Academy of Agricultural Sciences, Wuhan Botanical Garden, Chinese Academy of Sciences.

**Breeders:** Zhang Heshan, Liu Yang, Chen Liang, Tian Hong, Xiong Junbo, Xie Yan, Lu Jiaoyun, Wu Xinjiang.

**Characteristics:**

It is a perennial herb. The main stem is short, and the grass layer height is 30 cm to 38 cm during the flowering period. The three-leaved palmate compound leaves are obovate or elliptical, with "V"-shaped white spots on the leaf surface. The pedicel is red, about 0.5 cm long, and the total peduncle is 30 cm to 35 cm long. The head inflorescence is 2 cm in diameter and contains 80-100 small flowers. The corolla is butterfly-shaped, red, with obvious pigment deposition, and the calyx is tubular. The stolon yield is about 12,000 kg/hm<sup>2</sup>. At the test site in Wuhan, Hubei province, the flowering period is about 200 days, which is 8 days longer than the control white clover 'Emu 1' and 10 days longer than the control white clover 'Rivendel'.

**Main use:**

It can be used for landscaping, plant landscaping, etc., and can be used as color ribbons, flower belts and planting backgrounds in courtyards, communities and parks.

**Cultural techniques:**

It is propagated by stolons, planted in holes, with a hole distance of 15 cm to 20 cm. The stolons segments with 2 to 3 buds are evenly arranged, with one plant in each hole, covered with soil to ensure that one bud is exposed to the ground, and watered in time to fix the roots. Planting is done in March to April in the North China and in September in the South China. In the Yangtze River Basin, water should be irrigated in time according to the degree of ground drought. Pay attention to watering when there is little rain in autumn to facilitate greening. In the north, irrigate in time according to weather conditions, and water the root layer soil thoroughly each time. Ensure that the planting area is well-lit to ensure the normal coloring of the petals.

**Suitable areas for planting:**

It is suitable for planting in temperate climate zones and cold climate areas in North China, Central China and Southwest China.

**11. *Cynodon transvaalensis* × *C. dactylon* ‘Luping 1’**

**Species:** *Cynodon transvaalensis* × *C. dactylon*

**Scientific name:** *Cynodon transvaalensis* × *C. dactylon* ‘Luping 1’

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-CT-011-2024

**Applicant:** Ludong University, Inner Mongolia Prataultural Technology Innovation Center Co., Ltd., Qingdao Agricultural University, Beijing Happygrass Sportsgrass Technology Company Limited.

**Breeders:** Fu Jinmin, Wang Wei, Li Xiaoning, Shao An, Wang Zhaoming, Liu Yaling, Yuan Feng,

Jia Chenyan.

**Characteristics:**

It is a perennial herb and triploid in nature. The underground stems are long and spreading extensively, often developing adventitious roots at the nodes. The plant reaches a height of approximately 30 cm. At the test site in Yantai, Shandong, it begins greening in mid-to-late April and turns yellow in early to mid-November, resulting in a green lawn period of 210 to 240 days annually. The overall turf quality score surpasses that of the control varieties 'Suzhi 2' *Cynodon dactylon* and 'Handan' *Cynodon dactylon*. At the Yantai test site, the average green lawn period is 226 days, which is 15 days longer than the control 'Baoding' *Cynodon dactylon*.

**Main use:**

It can be used for football fields, golf course fairways and tee boxes, public green spaces, and soil-stabilizing lawn construction.

**Cultural techniques:**

It is planted from May to October. On coastal saline-alkali land, the recommended method is turf laying, where the turf is cut into 30 cm×30 cm squares or into strips using a lawnmower. The grass blocks should have consistent thickness with 2 to 3 cm soil attached. When planting, ensure that the soil above the turf is level with the ground. After planting, water it promptly and use manual or mechanical rolling to ensure close contact between the turf and the soil. Before planting, apply 30 kg of compound fertilizer per mu. After planting, apply 105 kg/hm<sup>2</sup> to 120 kg/hm<sup>2</sup> of urea per month to promote growth. Fertilization between October to November helps improve lawn greening in the following year.

**Suitable areas for planting:**

It is suitable for planting in regions south of the Yellow River, including North China, East China, Central China, and South China.

**12. *Lolium perenne* 'Lanping 1'**

**Species:** *Lolium perenne*

**Scientific name:** *Lolium perenne* 'Lanping 1'

**Variety category:** Bred variety

**Registration No.:** Guo S-BV-LP-012-2024

**Applicant:** Lanzhou University

**Breeders:** Nan Zhibiao, Li Chunjie, Chen Zhenjiang, Tian Pei, Wei Xuekai.

**Characteristics:**

It is a perennial clumping herb with *Epichloe* fungal endophyte infected species. The 4-year average leaf rust disease incidence rate was 3.5%, which was significantly lower than the 21.0%, 65.0% and 89.5% of the control varieties 'Peak' perennial ryegrass, 'Esquire' perennial ryegrass and 'Venus' perennial ryegrass, respectively. In the Lanzhou area, the green period is 308 days, which is 3 to 7 days longer than the control 'Peak' perennial ryegrass, 'Esquire' perennial ryegrass and 'Venus' perennial ryegrass. The seeds can maintain the vitality of the endophytic fungi when

stored at 4°C. At the regional test sites in Yulin of Shaanxi province, Urumqi of Xinjiang, Sarqin of Inner Mongolia, and Ganzhou of Gansu province, the comprehensive evaluation scores of lawn quality were higher than those of the control varieties ‘Peak’ perennial ryegrass and ‘Esquire’ perennial ryegrass.

**Main use:**

It can be used for sports field turf construction, green land lawn construction, slope protection and greening, etc.

**Cultural techniques:**

The best sowing period for lawn planting is from April to September. It is planted by seed sowing, with a sowing rate of 250 kg/hm<sup>2</sup> and a sowing depth of 1 cm. It does not have high requirements for soil quality and soil type. The plot is flat and an appropriate amount of base fertilizer (diamine or farmyard manure) is applied. After sowing, lay a lawn-specific non-woven fabric. Sprinkle once every morning or evening before germination, and sprinkle as needed after the lawn is formed. Mow in time, and leave a stubble height of 3 cm.

**Suitable areas for planting:**

It is suitable for planting in the Loess Plateau, North China Plain, and arid and semi-arid areas of the northwest inland areas.

**13. *Astragalus melilotoides* ‘Baerhu’**

**Species:** *Astragalus melilotoides*

**Scientific name:** *Astragalus melilotoides* ‘Baerhu’

**Variety category:** Wild domesticated variety

**Registration No.:** Guo S-WDV-AM-013-2024

**Applicant:** Inner Mongolia Grassland Technology Innovation Center Co., Ltd., Inner Mongolia Mengcao Grass Industry Technology Co., Ltd.

**Breeders:** Wang Zhaoming, Guo Jinlong, Liu Yingjun, Fu Bingzhe, Suo Mingchun, Wang Zhiyong, Liu Zhihua, Yuan Feng, Kang Yongxia, Liu Jun.

**Characteristics:**

It is a perennial herb with a well-developed root system, about 70 cm deep. The annual average hay yield is 3400 kg/hm<sup>2</sup>, which is 9% and 21% higher than the control wild *Astragalus melilotoides* and *Astragalus melilotoides* ‘Ordos’, respectively. The seed thousand-grain weight is 1.3 g. The annual average seed yield is 700 kg/hm<sup>2</sup>, which is 13% and 44% higher than the control wild *Astragalus melilotoides* and *Astragalus melilotoides* ‘Ordos’, respectively. The ecological restoration efficiency at the test sites in Hailar, Hohhot, Inner Mongolia, and Yanchi, Ningxia was 402 days, 390 days, and 387 days, respectively, which was 13 days, 11 days, and 6 days earlier than the control wild *Astragalus melilotoides*, and 18 days, 2 days, and 3 days earlier than the control *Astragalus melilotoides* ‘Ordos’, respectively.

**Main use:**

It can be used for reseeding natural grasslands, improving degraded grasslands and building

artificial grasslands. It can also be used for ecological management and soil and water conservation.

**Cultural techniques:**

The soil should be turned over to a depth of more than 20 cm. After turning over, harrow and press the soil in time, and apply basal fertilizer. It can be sown in spring, summer, or autumn. The best time to sow is in the rainy season from June to July. In Hulunbuir, autumn sowing should not be later than the end of July. Grind the seeds, sow in rows, with a row spacing of 40 cm to 50 cm, a sowing rate of 7.5 kg/hm<sup>2</sup> to 11.5 kg/hm<sup>2</sup>, a sowing depth of 1 cm to 2 cm, and press down in time after sowing. It is not recommended to mow in the first year. After the second year, it can be mowed 1-2 times a year. There should be a 30-40 days regeneration period after each mowing to ensure safe wintering.

**Suitable areas for planting:**

It is suitable for planting in areas with annual precipitation above 350 mm, such as Northeast China, central and eastern Inner Mongolia, Ningxia province, Shaanxi province, and Gansu province.

**14. *Lolium mutiflorum* × *Festuca arundinacea* ‘Perseus’**

**Species:** *Lolium mutiflorum* × *Festuca arundinacea*

**Scientific name:** *Lolium mutiflorum* × *Festuca arundinacea* ‘Perseus’

**Variety category:** Introduced variety

**Registration No.:** Guo S-IV-LM-014-2024

**Applicant:** Sichuan Agricultural University, Sichuan Forestry and Grassland Development Research Center (Sichuan Forestry and Grassland Information Center), Chongqing Academy of Animal Sciences.

**Breeders:** Huang Linkai, Nie Gang, Zhang Jian, Feng Guangyan, Wang Xiaoshan, Huang Dejun, Li Hongxiang.

**Characteristics:**

It is a perennial, sparse-bush tetraploid grass, typically reaching a plant height of 90 cm to 110 cm. The average annual fresh grass yield is 58452.73 kg/hm<sup>2</sup>, surpassing the control varieties *Lolium mutiflorum* × *Festuca arundinacea* ‘Laofa’ and *Lolium mutiflorum* × *Festuca arundinacea* ‘Perny’ by 11.89% and 13.87%, respectively. The average hay yield is 7466.85 kg/hm<sup>2</sup>, which is 11.28% and 12.84% higher than the control *Lolium mutiflorum* × *Festuca arundinacea* ‘Laofa’ and *Lolium mutiflorum* × *Festuca arundinacea* ‘Perny’, respectively. At the heading stage, the crude protein content is 22.07%, the crude fat content is 2.52 g/kg, the neutral detergent fiber content is 51.3%, and the acid detergent fiber content is 31.8%.

**Main use:**

For animal feed

**Cultural techniques:**

It is suitable for a variety of soils. Prior to sowing, the land should be carefully prepared, and base

fertilizer should be applied to poor soil. Sowing can be done in either spring or autumn, with a row spacing of 20 cm to 30 cm, a sowing depth of 1 cm to 2 cm, and a sowing rate of 15 kg/hm<sup>2</sup> to 22 kg/hm<sup>2</sup>. During the seedling stages, weeds should be promptly removed, and inter-row cultivation should be combined with soil loosening. After every 2-3 mowing or grazing, 50 kg/hm<sup>2</sup> to 100 kg/hm<sup>2</sup> of urea can be applied to promote growth. Watering should be done appropriately during tillering, jointing, booting, or winter and spring drought. It is suitable for mowing green feed or drying hay. The stubble height is about 5 cm from booting to heading, and it can also be used for grazing.

**Suitable areas for planting:**

It is suitable for planting in the subtropical areas of the middle and upper reaches of the Yangtze River Basin, in cool and humid areas with an altitude of 1000 m to 2500 m, precipitation of 800 mm to 1500 mm, and an annual average temperature of 10°C to 25°C.