



REPUBLIK INDONESIA
KEMENTERIAN HUKUM DAN HAK ASASI MANUSIA

SURAT PENCATATAN CIPTAAN

Dalam rangka perlindungan ciptaan di bidang ilmu pengetahuan, seni dan sastra berdasarkan Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta, dengan ini menerangkan:

Nomor dan tanggal permohonan : EC00201940660, 20 Mei 2019

Pencipta

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Kewarganegaraan : Indonesia

Pemegang Hak Cipta

Nama : **UNIVERSITAS MUHAMMADIYAH GRESIK**
Alamat : Jl. Sumatera No. 101, Gresik, Jawa Timur, 61121
Kewarganegaraan : Indonesia
Jenis Ciptaan : **Leaflet**
Judul Ciptaan : **Bambara Groundnut As A Future Crop**
Tanggal dan tempat diumumkan untuk pertama kali di wilayah Indonesia atau di luar wilayah Indonesia : 20 Mei 2019, di Gresik
Jangka waktu perlindungan : Berlaku selama 50 (lima puluh) tahun sejak Ciptaan tersebut pertama kali dilakukan Pengumuman.
Nomor pencatatan : 000142667

adalah benar berdasarkan keterangan yang diberikan oleh Pemohon.
Surat Pencatatan Hak Cipta atau produk Hak terkait ini sesuai dengan Pasal 72 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta.



a.n. MENTERI HUKUM DAN HAK ASASI MANUSIA
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BAMBARA GROUNDNUT (*Vigna subterranea* (L) Verdcourd) AS A FUTURE CROP



ENDAH SRI REDJEKI

WHAT IS BAMBARA GROUNDNUT (BG) ?

- BG is a future crop, it is well adapted in dry to marginal land (Brink, 1997; Collinson *et al.*, 1997; Massawe *et al.*, 2003; Mwale *et al.*, 2007) and low input (Ntundu *et al.*, 2006).
- BG is better than peanut for drought tolerance (Brink *et al.*, 2006). It needs RH 50-60% (Laari, *et al.*, 2012).
- BG has a high market price, 3x expensive compare to peanut.

WHY BG ?

Nutrition content of BG:

Carbohydrate 59.93%, protein 20.75 %, fat 5.88 %, water 10.43 %, and ash 3.03 % (Hidayah *et al.*, 2005). BG contents 1% oil, therefore BG is not rancid. Most of unsaturated fatty acid contains *palmitoleic, oleic, linoleic and caprylic* which are very important for human body, especially the body can't produce them *in-vivo* (Okonkwo and Opara, 2010). All part of BG can be used as zero-waste crop. BG has total calorie higher than *pigeon pea, lentil and cowpea* (FAO, 1982).



WHERE ?

In INDONESIA, the BG used to plant in the West Java and East Java. The maximum yield is depend on cultivation level, more less 4ton/ ha of fresh pods.

WHEN ?

BG farmers used to start planting when the rainfall coming. Therefore, farmers plant the BG once per year. However, if we can supply water during dry season, then we can plant along year.

HOW TO CULTIVATE BG

Seed require (kg/ha)	: 50-75 kg/ha
Seed number/hole	: 1-2 seeds
Planting distance	: 50 x 25 cm
Drainage	: 30 x 50 cm

Soil management : depend on machine used

Seed preparation : soaking the seeds into parazon 10% for 5 minutes to remove spores and many kind of insect eggs, rinse the seeds into tub-water

Planting : seeds is sowed into 5 cm depth accompany Furadan 3 D (nematicide). Watering is a must during germination and vegetative phase.

After 7-10 days after sowing, the seeds will be germinated.

The flowers will come up after 32-45 DAS.

Earthing up is needed to hide the pods from mouse. Harvesting indicator will be appeared when the pods hard, leaves yellowing and around 120 days after sowing.

Yield potency of fresh pod 4 ton/ha.

BG USES

1. Porridge
2. Vegetable milk (fresh milk; milk powder)
3. Snack with different flavor
4. Roasted snack
5. Flour for biscuit, brownies, cookies, bakpia.
6. Fish/chicken feed
7. Tempe, condiments
9. Outer skin of seed can be used as anti impotency
10. Bambara Noodle
11. Bambara Sauce

Bambara leaves can be used as herbal medicine, green fertilizer, and biopesticide



BAMBARA GROUNDNUT RESEARCH CENTRE

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