Evaluation of Organic Matter as Potting Media

MOHD SHAHKHIRAT NORIZAN, MOHD KHAIRIL MOHAMAD, ALANGSERI AYU BAYU KAMARUZAMAN AND IZWANIZAM ARIFIN

Agriculture Department, Felda Global Ventures Research and Development, Pusat Perkhidmatan Pertanian Tun Razak, 26400 Bandar Pusat Jengka, Pahang, Malaysia

For raising palms in the nursery for field planting in situ soil is widely used as the potting media. In addition to obtaining suitable soil for potting media the heavy nature of soil creates a problem when transferring potted palms for field planting. Thus eight different potting media were tested i.e. soil (S), compost of EFB and palm oil mill effluents (POME) (C), compost of EFB+POME + soil (C + S), sawdust (SD), sawdust + soil (SD+ S), coconut coir (CC), coconut coir + soil (CC+ S) and sphagnum peat (SP). For the combination treatments, the organic and sphagnum peat media were mixed with soil at the ratio of 1:1 by volume. Results of eight months of growth revealed that CC and SP based media produced better vegetative growth of seedling than others in terms of girth size, height and frond length. The compost media gave moderate growth performance but with regard to weight of the final “potted plant” for field planting, it was the lightest. The SD potting media, whether mixed with soil or not, produced inferior results. The results indicate that soil can be substituted by alternative potting media, but further assessment of varying inputs needed, oil palm growth and cost effectiveness need to be farther evaluated.

Keywords: Potting media, compost, sawdust, coconut coir, sphagnum peat.