Annual Poster Session

10-23-2020

D02. NCNPR Activities at Coy Waller Complex

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Recommended Citation
ElSohly, Mahmoud A.; Chandra, Suman; Radwan, Mohamed M.; Lata, Hemant; Wanas, Amira; and Majumdar, Chandrani G., "D02. NCNPR Activities at Coy Waller Complex" (2020). Annual Poster Session. 25.
https://egrove.olemiss.edu/pharm_annual_posters/25

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Coy Waller Laboratory Complex is located on the southwestern corner of the Ole Miss campus. It consists of offices and research laboratories, and the marijuana growing facilities. It is part of the NCNPR, School of Pharmacy and RIPS. Coy Waller Laboratory includes:

1. Indoor growing facility.
2. Outdoor growing facility.
3. Laboratories (7 laboratories).
4. Vaults (2 vaults to keep the dried marijuana plant, extracts and cannabinoids with low temperature storage capability (-20 °C).
5. Offices (9)

It is the home of the marijuana project which has been at Ole Miss since 1968.

**Marijuana Project Aims**

- Grow, harvest & process cannabis
- Provide cannabis products such as extracts and individual cannabinoids for NIDA’s Drug Supply Program.
- Manufacture & distribute cannabis cigarettes for research.
- Production of cannabinoids
- Cannabis phytochemistry
- Confiscated cannabis analysis

**Outdoor growing**

We have the ability to cultivate and produce many varieties of *C. sativa* from seeds or cuttings (1.5 acres to 12 acres).

**COY WALLER COMPLEX**

**Indoor growing**

**Processing of plant material**

**Cannabis Extraction & Distillation**

**Cannabinoinds isolation**

Cannabinoids with purity more than 95% were prepared from cannabis distillate by using many chromatographic techniques.

CBD produced with purity > 99%

The amount produced in 2020:

In 2020 we produced 190 g THC and 500 g of CBD and 51 kg extract

**Testing analytical laboratory for Cannabis samples**

Marijuana and products such as, extracts, hashish, hash oil and edible products which are confiscated by DEA and law enforcement agencies are analyzed in the Coy Waller Lab. using GC/FID. Each year more than 2000 samples of domestic or non-domestic origin are analyzed for different major cannabinoids. All samples from different growing stages of cannabis production as well as during the extraction and isolation of cannabinoids were also analyzed by GC/FID, GC/MS, HPLC, UPLC and HPTLC.

**Coy Waller’s Lab. Team**

**Gamma Irradiation**

**Tissue Culture**

In our laboratory, an *in vitro* clonal propagation protocol has been used for the production and maintenance of high yielding elite clones. The process allows us to develop a secure and stable *in vitro* clonal repository of *C. sativa* and maintain essential genetic materials for future production needs.

**Acknowledgments**

The project is supported by National Institute on Drug Abuse (NIDA), contract # N01DA-15-7793.