(42)

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ANALYTICAL RESEARCH DIVISION
RESEARCH DIRECTORATE

27 September 1984

Analysis/Evaluation of Reference Rice Samples

A shipment, designated 10027I(4), also identified with LA831204-8DB, LA831202-9DB and LA831207-10DB, was received by the Analytical Research Division, 11 January 1984, from FSTC. The shipment consisted of three unmilled white rice samples (figure 1) reportedly collected from different areas in Laos as uncontaminated control samples. Each sample was containerized in a ziplock plastic bag.

A vapor sample withdrawn from within each plastic bag was subjected to analysis by gas chromatograph/mass spectrometry (GC/MS). Portions of each sample were leached in chloroform. Other portions of each sample were leached in 1:1 methanol:water. The solvent solubles were analyzed by GC/MS, ion chromatography (IC), thin layer chromatography (TLC) and infrared spectrometry (IR).

10027I(4)-1 (LA831204-8DB

The GC/MS spectra of the vapors associated with the sample identified only traces of ethyl naphthalene. The GC/MS spectra of the chloroform solubles detected traces of hydrocarbons from C_{28} to C_{32} and a possible trace of rubber. IC and TLC were both negative. Derivatization/MS was negative for trichothecenes. IR spectra detected aliphatic hydrocarbons and a carbonyl band at 1729 cm^{-1}.

10027I(4)-2 (LA831202-9DB)

The GC/MS analysis of the vapors associated with the sample gave no definitive spectra. The GC/MS spectra of the chloroform solubles detected only a possible trace of rubber. IC and TLC were both negative. Derivatization/MS was negative for trichothecenes. IR spectra identified aliphatic hydrocarbons and a carbonyl band at 1732 cm^{-1}.

10027I(4)-3 (LA1207-10DB)

The GC/MS analysis of both the vapor associated with the sample and the chloroform solubles gave no definitive spectra. IC and TLC were negative. Derivatization/MS was negative for trichothecenes. IR spectra identified aliphatic hydrocarbons and a carbonyl band at 1730 cm^{-1}.

Conclusion

No evidence of any known CW agent, agent degradation product or trichothecene was detected. The samples each appeared completely innocuous and excellent reference samples. The carbonyl detected in these samples indicates the carbonyl detected in suspect samples could be from natural sources.

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Classified by: CIA
Declassify: OADR

ENCL 24

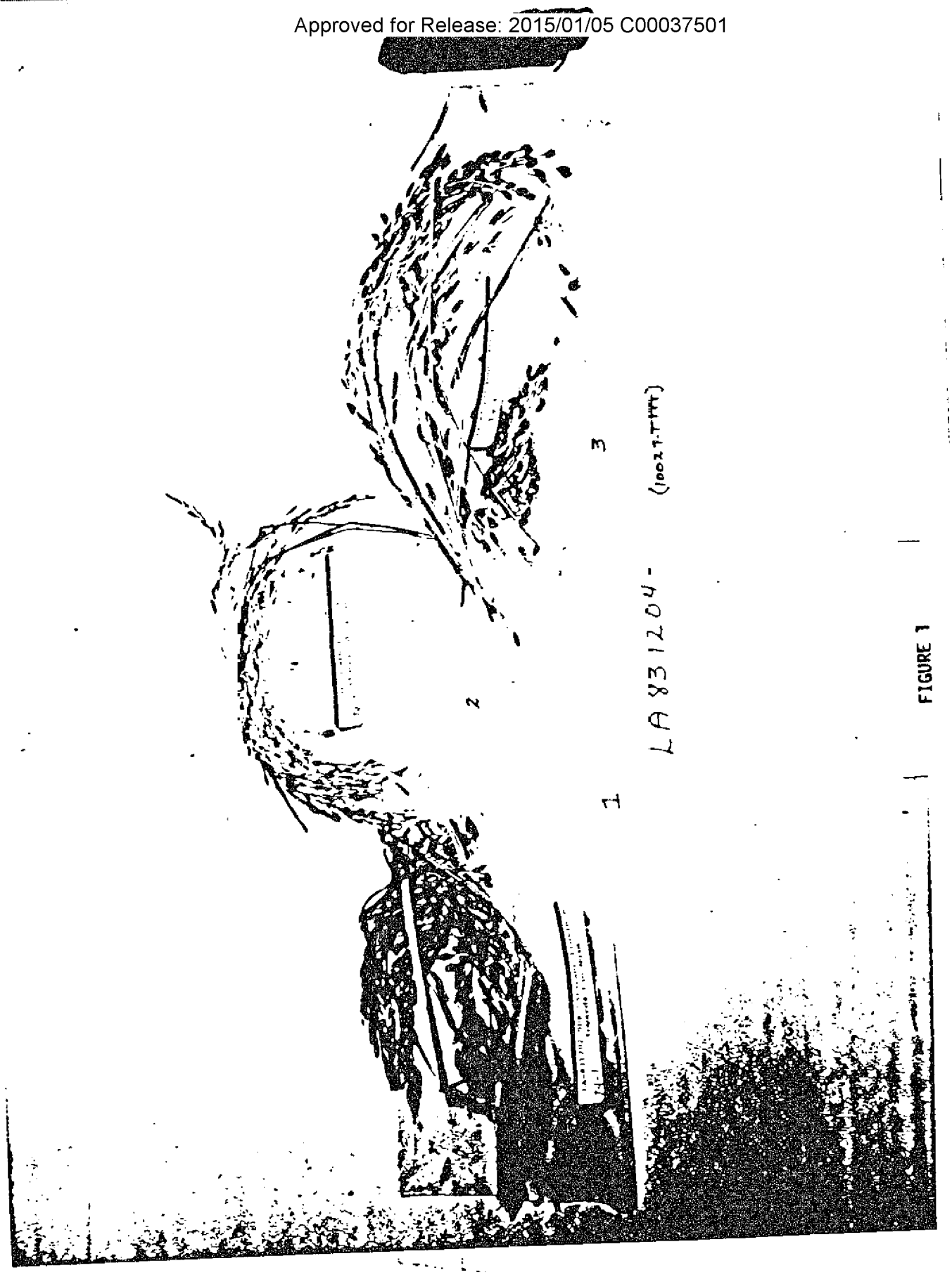

FIGURE 1