No need to reinvent the laws. Just do it the way 64 other countries do it. I know that they are not uniform, but certain norms have emerged.

Label directly on the package. No QR codes or 800 numbers.

Label each ingredient on the list as 'gmo' or 'GE', whether that technique was recombinant, synthetic biology, cisgenics, RNAi, CRISPR or any other non-natural artificial method of genetic manipulation not possible in nature.

Label animal foods that have been raised on gmo feed as 'raised on gmo feed'. Simple as that.

Leave off any mention of 'biotechnology'. It's too scientistic and not necessary. 'Gmo' and/or 'GE' is sufficient.

Under 1% gmo content (the likely amount from unwanted contamination) need not be labeled.

Single disclosure category. If the company uses gmo's, label it.

No exemptions. It's even more important to know if medical food or supplements contain gmo's.

Just print the letters 'gmo' after each ingredient that contains it.

No symbols. Words, like ingredients. If you do decide to use a symbol, use the Skull and Crossbones.

No QR codes or digital links or phone calls. On package labeling in words.

Only exempt food sellers small enough to sell locally so consumers can know the provider personally. Any seller shipping out of their immediate locale, require labels.

Do periodic unannounced inspections with scientific analysis of foods to compel compliance.
Announce any violations publicly on USDA website, through main media, and social media, and announce company names, so public boycotts, avoidance of contaminated food and customer rejection can compel compliance.

Don't worry too much about imports. Many countries already label rather well, and just tell them to keep their gmo labels on for US markets. Those countries who do not label, tell them to or they can't export to the US.