



For the attention of:

- Dr Marcos A. Orellana, UN Special Rapporteur on toxics and human rights
- Dr David R. Boyd, Special Rapporteur on human rights and the environment
- Mr Pedro Arrojo-Agudo, UN Special Rapporteur on the human rights to safe drinking water and sanitation
- Mr Olivier De Schutter, UN Special Rapporteur on extreme poverty and human rights
- Mr Michael Fakhri, UN Special Rapporteur on the right to food
- Ms Tlaleng Mofokeng, UN Special Rapporteur on the right to health
- Mr Francisco Cali Tzay, UN Special Rapporteur on the rights of indigenous peoples

Friday 26 January, 2024

Request for intervention on drought and herbicide resistant GM wheat

We would like to present our concerns regarding the release and commercialization of Bioceres' drought-tolerant genetically modified (GM) wheat (HB4) and the herbicide glufosinate-ammonium.

A. Concerns about transgenic wheat

Wheat is currently the main source of carbohydrates and proteins for a high percentage of the world's population, used ubiquitously in everyday foods such as bread, noodles/pasta, couscous, and pastries. However, despite the importance of wheat in the human diet, there is no validated public method for the detection, identification, and quantification of the presence of HB4 wheat in flour and other wheat-derived products. Wheat also represents a major crop (and source of income) for millions of small farmers, which is essential for the guarantee of food sovereignty and nutritional security around the world. In addition, it occupies a greater surface area than any other commercial crop.

The approval of HB4 wheat has caused much concern across a broad sector of society because its planting and consumption violates several human rights, such as the right to: life and livelihoods; health; adequate food and food sovereignty; a balanced and pollution-free environment; access to land and territory; and the right to self-determination of peoples and local communities that survive off the environment and nature. Beyond the violation of environmental and health rights, economic and social rights are impacted, since transgenic seeds are accompanied by technological packages

made up of one or more pesticides. A few biotechnology corporations hold a monopoly over their supply; thereby introducing farmers and millions of hectares to a highly concentrated market.¹

B. Concerns about the use of genetic manipulation to address drought

Why take the risk of releasing a new biotechnology without proven minimal benefits?

As humanity, we live in an era of multiple crises, including the climate crisis, which must be addressed with real solutions.

Taking advantage of the situation of the shocks humanity is experiencing – in the face of the climate crisis and intensification of catastrophic events, which endanger food production in vast regions of the world – the biotechnology industry proposes the introduction of transgenic crops with drought tolerance, such as HB4 wheat – modified to tolerate drought – and the associated herbicide glufosinate-ammonium. This is a false solution that will not mitigate the effects of climate change on agriculture, since drought resistance is the result of the combined action of a set of genes in the plant, environmental factors and cultural cultivation techniques, which cannot be addressed simply through engineered manipulation.

Bioceres, the seed marketing company, has made misleading and unscientific advertising claims to regulatory authorities, academic institutions, growers and consumers. The advertising strategy consists of exaggerating and reaffirming the supposed productive advantages, while hiding and/or minimizing the damages and risks that the generalized adoption of the technology would imply. We see this as a serious disregard for the precautionary principle because many regulations had to be overcome in institutions that should guarantee our right to health, healthy food and a healthy environment.

Transgenic traits with drought tolerance have been a commercial failure because of their unfulfilled promises in the face of climate crises. For example, the approval of Bayer's (formerly Monsanto's) "drought-tolerant" GM maize MON 87460 has been legally challenged by the ACB in South Africa since 2017, culminating in the case being heard in the High Court in 2023, where it was argued that the alleged drought tolerance could not be demonstrated, based on the agronomic performance of the crop.²

Similarly, HB4 soybean, which was also developed for its supposed "drought tolerance", is no longer promoted because it has been such a dismal technological failure, being unable to produce the results its promoters claimed.

As for HB4 wheat yields, according to information from the Argentine Ministry of Agriculture, of 40,116 hectares threshed – 76% of a total of 52,775 – yields in the 2021/2022 season were low and production only reached 97,281 tons. In other words, average productivity was a very low 2.42 ton per hectare.³

1 Until December 2022 just four companies controlled half (49%) of the world seed market and 75% of the agrochemical market: Bayer (19%), Corteva (18%), Syngenta (8%) and BASF (4%). (GRAIN, 2022).

2 <https://acbio.org.za/gm-biosafety/activism-bogus-drought-tolerant-maize-south-africa-high-court-review/>

3 https://www.argentina.gob.ar/sites/default/files/trigo_hb4_15_febrero.pdf

Bioceres' claim to the Argentine regulatory authorities that GM wheat outperformed conventional wheat by about 16% is **not** evidenced by the data, since the company did not compare the yields of the transgenic wheat against the highest yielding varieties, or the most popular ones. In addition, Bioceres did not take into account their own data, as published in the annexes.

From the monitoring carried out by the Seed Institute of Argentina – Instituto Nacional de Semillas (INASE)⁴ – on almost 53,000 hectares cultivated in 2021, HB4 wheat yielded on average **17% less** than the averages published by the Ministry of Agriculture.⁵ In provinces where droughts were recorded that year,⁶ HB4 wheat yields were also lower than conventional wheat. Even agribusiness criticized the low yield of transgenic wheat in Argentina.⁷

C. The approval of GM wheat in the world

In October 2020, the Government of **Argentina** approved HB4 wheat for production and consumption, subject to its approval in **Brazil** (Argentina's main wheat market), which occurred in November 2021 – when Brazil approved the importation of GM wheat flour – and in 2023 its cultivation was allowed in Brazil as well as in Paraguay.

In 2022, flour for animal and human consumption was approved for import into **Nigeria, South Africa, Australia, New Zealand and Colombia**; and into **Indonesia** (the second largest importer of Argentine wheat) in 2023.⁸ The United States (US) Food and Drug Administration (FDA) concluded that GM wheat is safe for consumption in 2022 but approval for planting is pending at the US Department of Agriculture.

In all the countries where HB4 wheat was approved, there have been rapid, abbreviated evaluations, based only on documents, with neither experimental research done nor public participation in the process.

In **Paraguay**,⁹ the process was conducted in complete secrecy, violating basic constitutional rights requiring publicity and transparency of administrative acts; and without considering the issues regarding the genetic manipulation of HB4 wheat¹⁰ or its dangers to biodiversity and health,¹¹ and without proving the alleged agronomic benefits.

In Argentina, the Coordination of Biotechnology and Industrialized Products (CBPI) of the Directorate of Agrifood Quality conducted the evaluation of HB4 wheat in May 2019, which was audited by the Comptroller General of the Nation.

4 https://www.argentina.gob.ar/sites/default/files/trigo_hb4_15_febrero.pdf

5 <https://datosestimaciones.magyp.gob.ar>

6 https://www.magyp.gob.ar/sitio/areas/d_eda/sequia/

7 <https://agenciaterraviva.com.ar/el-agronegocio-rechaza-el-trigo-transgenico-critica-de-exportadores-y-bajo-rendimiento/>

8 Indonesia is a major exporter of instant wheat noodles, so the noodles could reach a large number of consumers.

9 <https://www.biodiversidadla.org/Documentos/Pan-sin-Veneno>

10 HB4 wheat has 62,000 additional organic base pairs than planned; that is, 12 times more than the number of nucleotides originally intended to be inserted. The effects of these new sequences are not known. See in: <https://agroecologia.org.br/2023/03/21/oficio-nao-ao-trigo-transgenico/>

11 African Centre for Biodiversity (2023). Capitalismo catastrófico, industria biotecnológica en declive e instrumentalización del trigo en África. https://acbio.org.za/wp-content/uploads/2023/05/Trigo-Transfenico-fuera-de-Africa_Spanish.pdf.

The CBPI report, *Genetic and genetically modified resources on the approval of these events in the country*, points out that "it was found that such evaluation does not include experimental tests (in laboratory). The evaluation is documentary in nature, carried out based on the technical-scientific information submitted by the applicant."¹²

In its defense, the regulatory agency that approved GM wheat in Argentina admits:

*No country in the world, except China, performs its own analysis. The United States, Brazil, the European Union (EU) and any other country does not carry out laboratory verifications. Instead, the sufficiency and consistency of the information is analyzed, but as for its veracity, the principle of good faith is applied.*¹³

In other approval processes, although transgenic wheat is intended for human consumption, there are no published toxicity data in the regulatory records, including the risk assessment submitted to the biosafety authorities. The only assessments made to affirm safety are:¹⁴

- An allergenicity study consisting of assessing whether the proteins intended to be introduced (and not the non-target proteins) can be broken down in simulated digestive juices.
- Bioinformatics analyses evaluating whether the introduced HaHB4 protein and PAT protein confer tolerance to glufosinate-ammonium respectively.
- Compositional analyses in which the levels of only 41 different components were analyzed, e.g., the levels of vitamins in the plant, and only two anti-nutrients were evaluated.

The risk assessment claims, without any scientific basis, that feeding studies are not necessary because the above tests have already been performed and because conventional wheat has a history of safe use.

These omissions do not meet the requirements of a precautionary approach for a crop destined for high levels of human food consumption. In addition, in terms of other aspects of the risk assessment that indicate potential risks from HB4 wheat, while the risk assessment report indicates that there are several unintended insertions of genetic material into transgenic wheat, it is stated that the risks of these are unknown.

The food safety implications are completely unknown; for example, whether altering the activity of any of these genes may lead to an increase in toxic metabolites, anti-nutrients or allergens, or a decrease in important nutrients.

D. Putting out fire with gasoline – the introduction of transgenics and the advance of the agricultural frontier into marginal lands and local populations

One of the main concerns about drought-tolerant crops is the possible expansion of the industrial agricultural frontier into regions known as "marginal lands" (classified as unfertile or degraded),

¹²Auditoría General de la Nación. Recursos genéticos y Organismos Genéticamente modificados. https://www.agn.gob.ar/sites/default/files/2019-07/informe_064_2019.pdf

¹³Pomer A. (2023). Cuestión de fe: trigo transgénico en la mesa y en el cuerpo. <https://lavaca.org/mu184/trigo-transgenico-peligros/>

¹⁴African Centre for Biosafety (2023) – see footnote 11.

which have traditionally been used sustainably by populations who know their territory, not only technologically but also culturally. These lands are in the hands, for example, of women who would otherwise have no access to land or of transgender communities.

If these lands acquire value for their potential agricultural use by food corporations, as has been documented in other agricultural frontiers, there could be greater pressure on these ecosystems, which could include: deforestation, land enclosures and expropriation of traditional communities, which implies losing their lands and territories, sources of life and their **right to self-determination as peoples** and to a way of life different from that of the hegemonic society.

In many countries of the Global South, when monoculture crops are developed with the involvement of agribusiness, this has served as the gateway to subordinate these spaces to the interests of investors and corporations in the global agribusiness chain, transforming them into zones of sacrifice, both socially and ecologically. This agribusiness chain is responsible for 37% of global carbon dioxide (CO₂) emissions.¹⁵ The production and use of synthetic nitrogen fertilizers, essential to industrial monocultures, accounted for more than 21% of annual agribusiness emissions in 2018.¹⁶

There is very little scientific research on the impacts of industrial crops on lands that, by definition, are extremely fragile, or on the communities that have been able to survive thanks to the delicate balance they maintain with their environment. Given the limited understanding of how these "marginal ecosystems" function, in a context of industrial agriculture, a medium-term impact could mean that intensive agriculture could lead these territories to a condition of greater "marginality", degradation and desertification, with an increase in emissions, further aggravating the climate crisis.

In countries where transgenic crops were released more than 20 years ago, there has been no serious assessment of the environmental, economic and health impacts of a shift of this enormous magnitude. Yet, those of us who live and work in the rural territories of these countries have seen how the displacement of food crops by agricultural commodities produced with transgenic seeds – associated with pesticides and the intensive use of synthetic fertilizers – has increased the technological and economic dependence of producers and the country. This dynamic has generated an increase in the use of and contamination by pesticides, leading to a real chemical war being waged against rural communities and nature,¹⁷ deterioration of the health of the population, advance of deforestation, grabbing of public and collective lands,¹⁸ and violence against local communities.

With HB4 wheat, this crop grown on marginal lands would be in keeping with the "scorched earth" logic of large biotech monocultures as part of their response to drought – akin to trying to put out a fire with gasoline.¹⁹

15 As estimated by the 2022 IPCC report.

16 GRAIN, Greenpeace and IATP 2021. New research shows 50-year binge on chemical fertilisers must end to address the climate crisis. <https://grain.org/e/6761>

17 <https://tribunaldocerrado.org.br/veredito/>

18 Verzeñassi D. et al. (2023). Cancer incidence and death rates in Argentine rural towns surrounded by pesticide-treated agricultural land. *Clinical Epidemiology and Global Health* 20 101239.

19 Bolivia: yet another testing ground for GMOs?
<https://grain.org/e/7087>

E. HB4 wheat increases the use of glufosinate ammonium, contamination of crops and expansion of a destructive industrial agricultural model

Not only have drought tolerant genes been inserted into HB4 wheat, it has also been engineered to be resistant to the herbicide glufosinate-ammonium,²⁰ a pesticide that has been banned or questioned in many countries, due to its high toxicity and bad health effects. In the EU, it is classified as toxic to the reproductive system and banned for not complying with Regulation 1107/2009.²¹

Glufosinate is associated with a number of adverse health and environmental effects, which have not been evaluated. Glufosinate-ammonium is a broad-spectrum herbicide recognized as neurotoxic,²² genotoxic²³ and with relevant impacts on the reproductive system.^{24 25} The company Bioceres claimed in Argentina and Brazil that the glufosinate-ammonium herbicide tolerance gene had been introduced into HB4 wheat "marker gene", only to be used as an agronomic technology in the field. Based on this information, **herbicide resistance was not considered** in Brazil as an issue to be evaluated via public hearings or in the risk analysis process. The adverse health effects of glufosinate residues in glufosinate-based foods were also not considered.²⁶ Contradictorily, the same company markets glufosinate and promotes it among HB4 wheat producers.²⁷

Due to the continuous use of the same herbicide in herbicide-resistant transgenic monocultures, herbicide-resistant weeds have emerged, leading to the application of increasingly stronger herbicides in spraying to try to maintain yields, which has increased herbicide consumption in territories with transgenic monocultures in the United States, Argentina and Brazil. For example, in Brazil, the cost of production per hectare for pesticides increased by 3,4% between 2008 (when transgenic corn was first planted) and 2022.²⁸ This increase in the chemicals required will necessarily increase the presence of this pesticide in wheat grain and products,²⁹ **putting at risk the right to health** of both rural workers and wheat consumers.

20 Resistance to glufosinate ammonium is achieved with the insertion of the PAT gene.

21 <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:309:0001:0050:Es:PDF#>

22 Peltzer, P. M. et al. (2013). Cholinesterase activities and behavioral changes in *Hypsiboas pulchellus* (Anura: Hylidae) tadpoles exposed to glufosinate ammonium herbicide. *Ecotoxicology*. 22(7): 1165–1173.

23 Lajmanovich, R. C. et al. (2014). Induction of micronuclei and nuclear abnormalities in tadpoles of the common toad (*Rhinella arenarum*) treated with the herbicides Liberty® and glufosinate-ammonium. *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*. 769: 7–12. *Research/Genetic Toxicology and Environmental Mutagenesis*. 769: 7–12.

24 Lewis, K. A. et al. (2016). An international database for pesticide risk assessments and management. *Human and Ecological Risk Assessment: An International Journal*. 22(4): 1050–1064.

25 Beyond Pesticides. Glufosinate-Ammonium. Chemical Watch Factsheet.

<https://www.beyondpesticides.org/assets/media/documents/GlufosinateChemWatch.pdf>

26 Las dos impugnaciones presentadas por organizaciones civiles de Brasil al proceso de liberación de la importación de la harina y el cultivo del trigo HB4 pueden ser leídas aquí: <https://agroecologia.org.br/2023/05/23/trigo-transgenico-resposta-a-ctnbio/> y acá <https://agroecologia.org.br/2023/03/21/oficio-nao-ao-trigo-transgenico/>

27 Recomienda una aplicación mínima de 2 litros del glufosinato / ha. Cuando se aprobó el trigo HB4, la empresa instaló en su sitio web un simulador de ventas del trigo HB4 con la cantidad del herbicida que se debía usar en cada región de Argentina, pero fue eliminada luego de las denuncias de organizaciones de Argentina y Brasil.

28 Data from the municipality of Campo Mourão in the state of Paraná. <https://www.conab.gov.br/info-agro/custos-de-producao/planilhas-de-custo-de-producao/item/16-269-serie-historica-custos-milho-2-safra-2005-a-2021>

29 This has already happened with glyphosate-resistant soybeans. The maximum residue limit for glyphosate in grains was multiplied by 50, from 0.2 to 10 mg glyphosate/kg in soybeans in Brazil.

As has already been demonstrated in the Southern Cone,³⁰ the production model on which HB4 wheat is based is inherently land-grabbing because the costs saved in the use of inputs³¹ and labor are justified on large tracts of land. In addition, aerial spraying prevents the development of other non-GM crops, displaces other ways of working the land, homogenizes landscapes with few varieties, and expands monocultures into natural ecosystems.

Although wheat is self-pollinating, a small percentage can be pollinated by air or insects, which implies that non-GM varieties could be genetically contaminated. In addition, there is a high risk of intentional or unintentional mixing of grains, in machinery such as seed drills and combines, in storage, and industrial processing. The segregation of GM and non-GM wheat implies costs that end up carried by those who choose not to plant or consume genetically modified organisms (GMOs), raising the prices of organic or agroecological products. This demonstrates that HB4 wheat is not a crop intended for peasant/indigenous family farming but rather to be applied in so-called "sowing pools", where the ownership of the land is not a necessary prerequisite. Indirect forms of control are sufficient, such as land leasing – associated with indebtedness to banks or the capital market – which subordinates land and agriculture to schemes of "financialization of production".³²

F. Summary of human rights violations perpetrated by the release of HB4 wheat

The approval of HB4 wheat violates the human rights to an adequate environment; life and health; and life and livelihood of local peoples and communities that live off the biodiverse environment. The approval of HB4 wheat violates the right of free choice of farmers to choose the production system and legal regime to which they are subject (such as intellectual property) and of consumers to choose the quality of their food.

The approval of HB4 wheat resistant to glufosinate-ammonium may increase the amount of residue of this herbicide in grains, flours, and derived products. It multiplies the use of pesticides in producing countries, with impacts on the health of the population in general, and especially on the communities living in the areas of influence of the crops, and rural workers and workers involved in the processing of wheat; and it will increase the period of fumigation in the country. **All this violates the right to health, healthy food, and an environment free of contamination.**

The introduction of GM wheat cultivation will deepen the corporate presence in the rural areas and expand the agricultural frontier into marginal and peasant production areas, **violating the right to land, as well as the right to territory and self-determination of traditional peoples, and their right to their way of life; right to a healthy environment and the right to adequate food and food sovereignty.**

The approval of transgenic wheat was accelerated by way of by-passing public scrutiny and participation. Furthermore, there was no consultation with potentially affected communities, especially indigenous peoples and local communities in "marginal areas" – the focus of this biotechnology – **in violation of the right to free, prior and informed consultation.**

30 <https://www.biodiversidadla.org/Atlas>

31 Seeds, pesticides, synthetic fertilisers and machinery, with the payment of intellectual property royalties for their use.

32 Atlas del agronegocio <https://www.biodiversidadla.org/Atlas>

Although HB4 wheat is presented as mitigation measure to deal with climate change, it is a false solution and will rather exacerbates the impacts, as this GM crop will transform millions of hectares, especially in marginal areas, into industrial monocultures that are dependent on fossil fuel-based inputs – one of the prime drivers of climate change. The insertion of GM wheat cultivation in this model of biotech monocultures, to allegedly combat drought, is akin to throwing gasoline on the bonfire of the climate crisis, **violating the right of present and future generations to a healthy planet.**

G. REQUESTS

With these arguments, the undersigned organizations request the Special Rapporteurs to:

1. Urge the governments of Argentina, Brazil and Paraguay to suspend all authorizations made that permit the release of HB4 wheat, to stop any new plantings underway and to implement an assessment of the impacts of existing plantings on the environment and health.
2. In Paraguay, MAG Resolution No. 556/2023 – through which transgenic HB4 wheat was commercially released – should be revoked, in clear violation of the previously mentioned human rights; and, with this, the cultivation of transgenic wheat should become prohibited in Paraguayan territory.
3. In Argentina, the repeal of Resolution 27/2022, which is based only on documentary information from the company itself, without any experimental (laboratory) tests, together with an appropriate ban on the cultivation of GM wheat in the country;
4. In Brazil, the National Biosafety Council must be required to: prohibit the release of HaHB4 wheat, because it is contrary to national interests, with deleterious socio-economic impacts; immediately suspend the effects of the decision by the National Technical Commission on Biosafety (CTNBio) to import flour and GM wheat for cultivation in the country; as well as to order the annulment of the administrative process due to irregularities. A review of the biosafety legislation and the body responsible for its evaluation – CTNBio – is also required by civil, scientific and specialized public bodies.
5. Governments of countries that have given permission for the importation of HB4 wheat for consumption and processing – based only on the company's documents that are being challenged in the countries that approved its cultivation – including Colombia, South Africa, Nigeria and Indonesia, should urge biosafety control authorities to review the approval and initiate a moratorium on all approvals (product authorization, import and environmental release) of GMOs.
6. In South Africa, we request that the biosafety control authorities be urged to review the approval of HB4 wheat and initiate a moratorium on all approvals (product authorization, import and environmental release) of GMOs.
7. We require that governments be urged to carry out a reform of their regulatory frameworks regarding GMOs, in accordance with the precautionary principle and appropriate socio-environmental studies, which have as their fundamental pillar, the binding participation of the sectors directly affected by this decision, mainly: indigenous and peasant organizations; populations of the territories affected by the fumigation of pesticides associated with GMOs; organizations of independent scientists that were not involved in developing the GMOs but who work on their socio-biodiversity and health impacts; and consumers.
8. Due to the violations of human rights over the past 30 years associated with the planting and consumption of GM crops, we urge countries to initiate a moratorium on all approvals of GMOs.

Submitted by:

Civil Association of Socio-Environmental Health of Rosario, Argentina,
(<https://www.facebook.com/saludsocioambiental>)

The Network for a GMO-Free Latin America (www.rallt.org)

Citizen Science Movement – Movimento Ciência Cidadã – Brazil,
(<http://www.movimentocienciacidade.org>)

Social Research Base – Base Investigaciones Sociales, BASE-IS (<https://www.baseis.org.py/>)

Bread without poison campaign – Campaña Pan sin Veneno – Paraguay,
(<https://www.instagram.com/pansinveneno>)

The Union of Scientists committed to Society and Nature in Latin America – La Unión de Científicos comprometidos con la Sociedad y la Naturaleza de América Latina – UCCSNAL (<https://uccsnal.org>)

Network of Fumigated Peoples of Latin America – Red de Pueblos Fumigados de Nuestramérica

African Centre for Biodiversity (<https://acbio.org.za>)

Friends of the Earth, Nigeria (<https://www.foei.org/member-groups/nigeria/>)

GRAIN (<https://grain.org/>)

Health of Mother Earth Foundation, Nigeria (<https://homef.org/>)

Food First Information and Action Network, Indonesia (<https://fian-indonesia.org/>)

This letter is also supported by other civil society organizations (CSOs) working to promote sustainable indigenous and peasant-based agricultural systems in Africa, Asia, and Latin America.

Please also see Annex 1 and 2 below.

ANNEX ONE

GM wheat in Africa

1. There is considerable pressure on Africa to diversify its wheat sources. It has been suggested that Argentine wheat exports replace much of the demand.
2. In 2022, South Africa and Nigeria approved the importation of GM wheat, with both countries being among the main importers of wheat on the continent.
3. In South Africa, the import of HB4 wheat was approved for use in food, feed and processing. South African biosafety regulators did not take a precautionary approach when assessing the application, as is their obligation.
4. Wheat is one of the most important cereals in South Africa after maize and is widely grown in three regions of the country. South Africa is both an importer and exporter of wheat. South Africa imports wheat mainly from Australia, Lithuania, Latvia, Poland and Russia; and exports to several African countries, including Botswana, Zimbabwe, Lesotho, Zambia and Namibia.
5. There is great concern about contamination of the South African food supply. These concerns also extend to Botswana, Zimbabwe, Lesotho, Zambia and Namibia – countries in the region that import wheat from South Africa.
6. When HB4 wheat was approved, the South African regulatory authority said there is sufficient scientific support to conclude that the GM wheat variety is safe for human and animal consumption, which is patently untrue.
7. In a campaign coordinated by the African Centre for Biodiversity (ACB), 84 organizations representing millions of smallholder farmers, workers and consumers from across South Africa, the rest of the African continent and the world, strongly supported and endorsed a petition made to the South African biosafety authorities to rescind the approval of the importation of GM wheat.

ANNEX TWO

Latin American campaign: “Not in our bread”

This campaign was initiated by organizations from various countries, warning that HB4 wheat will increase the use of agrochemicals, in addition to the rest of the impacts that transgenic agribusiness has on the territories: land clearings, evictions of rural populations, degradation of soil and water pollution, among others.³³

Argentina: Pushback on GM Wheat by scientists

1. In Argentina in October 2020, through a letter signed by 1,400 researchers from different backgrounds and specialties, belonging to 35 universities and research institutes throughout the country, concern about the approval of transgenic HB4 wheat was voiced publicly. This letter was sent to the authorities of the relevant government ministries, requesting that this approval be rescinded and that a broad public debate be initiated, with the aim of democratizing the making of this type of decision.³⁴

One of the concerns of scientists is that sowing transgenic wheat on a large scale in the field is an irreversible process. The coexistence of transgenic and non-transgenic wheat is not possible due to the process of “genetic contamination” that occurs during pollination. Added to this is the impossibility of avoiding the mixing of seeds in the grain transport and collection processes. Genetic contamination will not only complicate the export of non-GM wheat but will also impede the development of production by farmers who are growing wheat agroecologically.

The ecological, social and public health costs are a triple challenge against the supposed success of this industrial agriculture system, which relies on extractivism to produce commodities and benefits a minority of the Argentine population who acquire the profits. Far from pointing to a gradual transformation of this system, the approval of HB4 wheat and the “TWO HUNDRED MILLION tons of cereals, oilseeds and legumes initiative”, which aims to increase grain production by more than 50% by 2030 in Argentina, this model is reinforced, without any consideration of the socio-environmental consequences of this goal.

2. On the other hand, several community networks present at the Congress of the Latin American Society of Agroecology (SOCLA) presented a manifesto in which they pointed out several concerns about the commercial release of HB4 wheat:
 - The release of this wheat does not respond to the demand of any sector of our population – the only interested parties are those who have developed, and will benefit economically from the use of, this technology.
 - It introduces new risk factors into the environment and health of our population.
 - It Imposes the use of technological packages that promote the privatization of genetic resources and the development of unsustainable agriculture that threatens our food sovereignty.

33 <https://agenciaterraviva.com.ar/el-cuestionado-trigo-transgenico-argentino-tuvo-luz-verde-en-brasil/>

34 <https://www.pagina12.com.ar/302009-trigo-transgenico-mas-de-1000-cientificos-advierten-que-es-r>

Finally, they called for the development of sustainable agriculture, which is respectful of our health and the environment, and promotes food sovereignty; that is, a diversified agriculture, managed by actors based in the territory, supported by socialized and appropriable technologies by producers, where the conservation of resources and care for the health of the population are elements to be valued, when it comes to making management decisions.

Brazil: Pushback/resistance from wheat industry, consumers and CSOs

1. Brazil's flour milling association, Associação Brasileira da Indústria do Trigo (Abitrigo), threatened to stop buying wheat from Argentina if Brazil approved GM wheat, with 85% of Brazilian flour millers saying they were not in favor of using GM wheat, and 90% being willing to suspend purchases from Argentina if GM wheat was approved.³⁵ Abitrigo has stated it will ask the President's office to order a review of the decision, and is evaluating legal options to suspend the ruling.
2. The Brazilian Association of the Bakery and Confectionery Industry also emphasized "the increase in consumer demand for healthy and natural foods, pointing out that, in their opinion, GM wheat will go in a different direction to this trend". Although some associations have changed their position after the decision, to allow the import of the flour and the crop, there is great controversy over the release of GM wheat, whether due to the tendency to monopolize the supply of seeds and pesticides, or from the point of view of farmers and consumers as regards their right to free choice of the type of production and feeding system.
3. Also in Brazil, CSOs initiated public awareness campaigns, with the support of critical scientists. Such initiatives had a good impact and positive effect, although they were strongly accompanied by defamatory arguments made against the critical scientists, from opinion makers and organizations committed to a pro- HB4 wheat perspective.

CSOs numbering 273,³⁶ and more than 17,000 people,³⁷ signed a manifesto³⁸ addressed to the National Biosafety Council (CNBS), requesting the cancellation of the approval of HB4 wheat for consumption and cultivation, due to several illegalities in the administrative process. In addition, several public awareness campaigns were launched, with the support of the independent scientists. Following the response of the National Biosafety Technical Commission, the organizations exposed the Commission's history of irregularities.³⁹

Other organizations that support the rescinding of the approval of HB4 wheat include: the National Forum for Combating the Impacts of Agrochemicals and Transgenics, the General

35 Somwanshi, R. (2020). Brazil's Abitrigo warns against Argentina's GMO wheat adoption; some skeptical of move. S&P Global Platts. <https://www.spglobal.com/platts/en/market-insights/latest-news/agriculture/101420-brazils-abitrigo-warns-against-argentinas-gmo-wheat-adoption-some-skeptical-of-move>

36 <https://contraosagrototoxicos.org/trigo-transgenico-no-nosso-pao-nao/>

37 <https://idec.org.br/campanha/trigo-transgenico-nao>

38 <https://agroecologia.org.br/2023/03/21/oficio-nao-ao-trigo-transgenico/> e

<https://agroecologia.org.br/2023/03/21/sociedade-civil-exige-cancelamento-de-decisao-que-libera-cultivo-e-comercio-de-trigo-transgenico-no-brasil/>

39 <https://agroecologia.org.br/2023/05/23/trigo-transgenico-resposta-a-ctnbio/>

Environmental Surveillance Board (CGVAM) of the Ministry of Health, the National Council for Food and Nutritional Safety (Consea), a consultative body of the Presidency of the Republic. So far, there has been no statements from the responsible bodies, but there have been successive bouts of denigration of the independent scientists by pro- HB4 wheat opinion makers and organizations.⁴⁰

Paraguay: Grassroots campaign by bakeries and gastronomic companies

4. In Paraguay, the citizen campaign, “Bread without Poison”, seeks the repeal of the resolution authorizing the planting of transgenic HB4 wheat. The campaign is supported by around 40 gastronomic enterprises and has already collected more than 8,000 signatures urging the government to protect human rights, especially in relation to food, health and the environment. “We kindly ask the MAG [Ministry of Agriculture and Livestock] to take immediate steps to address our petition and provide a detailed response on the actions it plans to take regarding the law allowing the use of genetically modified wheat in Paraguay”.⁴¹

40 Melgarejo L. (2023). La triste historia del trigo genéticamente modificado en Brasil En: Con la Soja al Cuello. BASE-IS, Paraguay.

41 <https://www.baseis.org.py/presentaron-argumentos-y-estudios-cientificos-por-un-pansinveneno/>